

APPENDIX A  
STUDY PROTOCOL AND AMENDMENTS

**Title: 211(b) CHRONIC CARCINOGENICITY STUDY - GASOLINE MTBE  
VAPOR CONDENSATE (GMVC)**

**Protocol Number:** FY01-013

**Sponsor:**

American Petroleum Institute (API)  
1220 L Street, NW  
Washington, DC 20005

**Study Facility:**

Lovelace Respiratory Research Institute  
Inhalation Toxicology Laboratory  
P.O. Box 5890  
Albuquerque, NM 87185

**Study Director:** Janet M. Benson, PhD, DABT

## **I. Purpose**

The purpose of this study is to evaluate the carcinogenicity and exposure-concentration response relationships associated with chronic inhalation of gasoline MTBE vapor condensate.

## **II. Regulatory Reference**

This study will be conducted under Alternative Tier 2 testing requirements under Section 211(b) of the Clean Air Act and the EPA Health Effects Test Guidelines OPPTS 870.4200 "Carcinogenicity." The stipulations of this protocol will be implemented in conformance with EPA regulations as specified in 40 CFR 79.60 "Good Laboratory Practices (GLP) Standards for Inhalation Exposure Health Effects Testing."

## **III. Sponsor**

American Petroleum Institute (API)  
1220 L Street, NW  
Washington, DC 20005

## **IV. Testing Facility**

Lovelace Respiratory Research Institute (LRRI), Inhalation Toxicology Laboratory

Mailing Address:  
P.O. Box 5890  
Albuquerque, NM 87185

Courier Address:  
Bldg 9217  
Area Y  
Kirtland Air Force Base East  
Albuquerque, NM 87115

**V. Personnel Involved in the Study:**

**A. Sponsor Representative**

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**B. Study Monitor**

Richard R. Clark, PhD, DABT  
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**C. LRRI Study Director**

Janet Benson, PhD, DABT  
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**D. Key Personnel Responsibilities**

Janet M. Benson, PhD, DABT, Senior Scientist, Study Director  
Quint H. Powell, MS, Inhalation Engineer  
Thomas H. March, DVM, PhD, DACVP, Veterinary Pathologist and  
Clinical Pathologist  
David G. Burt, DVM, DACLAM, Laboratory Animal Veterinarian:  
Justin Kubatko, MS, Statistician:  
Dorothy L. Harris, MS, CRM, RQAP-GLP, Quality Assurance Manager:

**VI. Test Substance**

**A. Identification, Source, and Storage**

Gasoline MTBE vapor condensate (Lot Number API-00-02) was prepared by Chevron Research and Technology Center, Richmond, CA. The test substance is supplied in 420 pound (100 gallon) gas cylinders by Chevron. Twenty pound cylinders and some 420 pound cylinders are stored in a storage building at LRRI, at ambient temperature. The remaining 420 pound cylinders are stored in an outside, controlled area, at ambient temperature. Transfer of test substance from the 420 pound to the 20 pound cylinders will be conducted as per LRRI SOP. Access is limited to authorized personnel. Receipt, use and inventory of this test substance will be documented.

The storage stability of the test substance is being tested concomitantly with the study and will be available at the completion of the study.

**B. Analysis**

**APPROVED COPY**

Chemical analysis of the test substance has been performed by ExxonMobil Biomedical Sciences Incorporated, Annandale, NJ has been provided to the Sponsor.

**C. Reserve Sample**

Reserve samples of the test substance will be retained by the Sponsor-contracted archives.

**VII. Environment, Safety and Health**

This study will be done in accordance with all applicable LRRRI environment, safety and health provisions, as specified by the LRRRI ES&H Manual. All personnel handling the fuel or working in the exposure area, including after-hours surveillance personnel will receive training on the appropriate handling of the fuel and emergency procedures. Training will be documented.

**VIII. Animals and Animal Assignments**

**A. Animal Receipt, Housing, and Quarantine**

Four hundred F344/Crl rats (obtained from Charles River Laboratories (Wilmington, MA), will be required for this study (Table B-1). The rats will be between 4 and 6 weeks of age upon receipt. Ten additional male and female rats will be purchased than are needed for the core study group and will serve as spares and to be used for evaluation of the health status before (5 males and 5 females) and during the exposures (5 males and 5 females). The animals will be quarantined and acclimatized to the whole-body inhalation exposure chambers for 10–14 days per LRRRI SOPs. Access to housing areas will be limited to authorized personnel only.

Receipt and the initiation of exposures of male and female rats will be staggered by one week.

**B. Justification of Test Animals**

Rats will be used in this study because of the large database available on the inhalation toxicity and carcinogenicity of toxic materials in rats. The study design is justified because it will provide exposure concentration-response information on the possible carcinogenicity associated with repeated inhalation of gasoline MTBE vapor condensate.

### C. Environmental Conditions

H2000 whole-body inhalation chambers will be used to house the rats and to conduct the exposures. Chamber flow rates will be 12-15 air changes per hour. Chambers will be held at approximately 1 inch of water negative pressure with respect to the exposure room.

The rats will be held in separate 3 13/16 x 11 x 8 inches (width by length by height) compartments within stainless steel baskets (6) within each chamber. When the body weights of the rats exceed 400 g they will be transferred to baskets providing more space (5.8 x 11 x 8 inches).

Temperatures will be held at 20°–24°C, and relative humidity will be held between 40–60%. Temperature, relative humidity, and chamber airflow rates will be monitored continuously, 24 hours per day. Values for the three parameters will be recorded at 30-minute intervals. The oxygen concentration in the chambers will be maintained at about 19%. Oxygen concentration will be monitored, but not recorded. Excursions of any of these parameters will trigger an alarm that will be answered as described by LRRRI SOPs.

A 12-hour light cycle, with lights on at 0600 will be maintained. Light levels in the exposure room and noise levels in the chambers will be determined quarterly.

### D. Diet and Drinking Water

Unlimited municipal tap water will be available at all times. The water will be tested annually as per LRRRI SOP. Rats will be fed Teklad Certified Rodent Diet (W). Food will be available at all times except during the daily 6-hour exposure period. Food will be removed from the chambers immediately preceding the daily exposure, and then replaced during post-exposure chamber checks. The lot of rodent diet will be recorded, and the results of manufacturer analysis will be kept on file at LRRRI. No contaminants are known to be in the diet or water in quantities that would be expected to interfere with the outcome of this study.

### E. Animal Disease Screening Program

#### a. Prior to Exposure

Within 8 hours of arrival, the rats will be examined by a veterinarian to determine their health status. Approximately 3-4 days before the first day of exposure, the rats will be re-examined by a veterinarian, and five males and five females not assigned to study will be selected for health screening. Each health screen animal will be sacrificed and blood taken for serological testing. Sera will be tested for antibodies to Sendai virus, rat coronavirus/sialodacryoadenitis (RCV/SDA), Kilharn rat virus/H-1 virus (KRV/h-1), pneumonia virus of mice (PVM), CAR Bacillus, Lymphocytic Choriomeningitis Virus, parvovirus, reovirus, and Mycoplasma pulmonis by Bioreliance, Rockville, Maryland. Each health screen rat will receive a complete necropsy. The

tissues to be taken are listed in Table B-2. These tissue samples will be discarded three months after initiation of exposures, unless questions of the health status of the rats arise during this period.

b. During Exposure and at Terminal Sacrifice

Five male and five female rats will be designated as surveillance animals and will be housed in the control chamber throughout the 104 week exposure period. They will not be considered core study animals. Blood from each rat will be obtained by retro-orbital bleeding during halothane anesthesia after 26, 52, and 78 weeks of exposure and at the time of terminal sacrifice. Sera will be tested as described in section E.a., above.

**IX. Experimental Design**

**A. Group Assignment**

The experimental design is shown in Table B-1. Rats will be visually examined by the Laboratory Animal Veterinarian before being placed on study; only animals judged to be of acceptable health will be used. Animals will be weighed and randomly assigned to a group using a computerized data acquisition system (Path-Tox; Xybion, Cedar Knolls, NJ) operated according to LRRI SOPs. The body weights of individual rats will be  $\pm 20\%$  of the group mean, and the group means will be similar for all groups. Animals will be assigned unique alphanumeric codes and identified by tail tattoo.

Table B-1. Experimental Design

<u>Exposure Group</u>	<u>g GMVC/m<sup>3</sup></u>	<u>Number of Rats</u>
Control	0	50M/50F <sup>1</sup>
Low Level	2	50M/50F
Mid Level	10	50M/50F
High Level	20	50M/50F

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<sup>1</sup>Exposures of males and females will be staggered by one week.

**B. Justification of Exposure Concentrations**

The highest exposure concentration chosen for this study is 20 g/m<sup>3</sup>. This corresponds to half the Lower Explosion Limit of the GMVC. The middle and low exposure concentrations are 10 and 2 g/m<sup>3</sup>, respectively. These concentrations were chosen by the sponsor, based on the results of earlier inhalation studies and the results of a recent 90 day study of GMVC.

## C. Exposure System

### 1. Design

A schematic of the vapor exposure system is shown in Figure 1. The daily supply of gasoline MTBE vapor condensate for each exposure chamber will be contained in 20pound gas storage tanks. Exposure atmospheres will be generated by metering pressurized gasoline MTBE vapor condensate through a rotameter (Figure 2) into a heated stainless steel transfer line. Concentrations will be controlled by the gasoline MTBE vapor condensate flow rate and dilution air rate, as necessary. Chamber exhaust will be carried to an oxidizer on the roof of the exposure facility where it will be burned.

### 2. Pre-Test Characterization

The exposure system will be tested prior to animal exposures. Characterization will include: 1) uniformity of the distribution of total vapor within each chamber; 2) within-day and between-day stability of vapor concentration; and 3) within-day and between-day consistency of the hydrocarbon profile as determined by gas chromatography; and 4) determination of the time for vapor concentration to achieve 90% of the equilibrium target value. The exposure atmosphere in the animals' breathing zone will also be examined for the presence of aerosol particles.

Once, prior to the initiation of animal exposures, the concentration of the test substance in the exposure room will be determined to ensure that the generator containment hood is operating satisfactorily.

### 3. Chamber Distribution Evaluation During Exposures

During the second week of exposure, the uniformity of vapor distribution will be evaluated again, to determine the distribution in the presence of the test animals.

### 4. Quantitation of Exposure Atmospheres

Vapor concentrations will be monitored continuously using Miran 1A infrared analyzers (Foxboro Wilks, Foxboro, CT). The high, mid, and low level exposure chambers will each be monitored by its own Miran 1A. A fourth Miran will be devoted to monitoring the control chamber and the room, when necessary. Sampling will be computer controlled. The Mirans will undergo a 5-point calibration weekly with test substance and will undergo a 1-point calibration check daily.

The absorbance signals recorded continuously from the first two hours, second two hours and third two hours will be averaged to provide 3 concentration values for each chamber each exposure day. The mean of the three values obtained in each exposure chamber will be reported as the day's exposure concentration for that chamber.

## 5. Qualitative Assessment of Exposure Atmospheres

The qualitative composition of the exposure atmosphere in each chamber will be determined weekly by gas chromatography. The percent peak area of each of 19 components will be determined and recorded according to LRR I SOP. The retention times of 5 to 10 key components will be verified every other week according to LRR I SOPs.

## 6. Determination of Nominal Concentration

Nominal concentration will be determined daily and will reflect the concentration generated for all three exposure systems combined. Therefore, the total mass of test substance generated will be divided by the total flow distributed to all three exposure chambers. This value will be compared to the sum of the mean concentrations achieved in the three chambers throughout that exposure day.

## 7. Concentration of Test Substance in the Exposure Room

Concentration of the test substance in the exposure room will be determined quarterly using a Miran Infrared Spectrometer operated using the same settings as used to monitor the 2 mg GMVC/m<sup>3</sup> exposure chamber.

## D. Exposures

Exposures will be conducted six hours/day (plus the time for the vapor concentration to reach 90% of the equilibrium value [T90]) 5 days per week for 104 weeks. There will be no exposures on LRR I designated holidays. Exposures will continue until terminal sacrifices are completed on all rats. Male and female exposure starts may be staggered by 1 week to facilitate conduct of terminal sacrifices. Sacrifices will be conducted during the 105<sup>th</sup> week of the study.

## X. Observations and Measurements

### A. Mortality and Morbidity

The rats will be observed by laboratory animal technicians twice daily throughout the study as specified in LRR I SOPs. On exposure days, the rats will be observed before and after the daily exposure. Examination will be oriented toward 1) identifying dead, weak or moribund animals, and 2) documenting the onset and progression of any abnormal clinical signs. Appropriate actions will be taken to minimize the loss of animals from study (e.g. necropsy or refrigeration of any rats found dead and sacrifice of weak or moribund animals). The Laboratory Animal Veterinarian or Study Director will make decisions regarding the euthanasia of weak or moribund rats. Moribund or dead animals will be necropsied as soon as possible.

## B. Body Weight

All animals will be weighed individually using Path-Tox data acquisition system on study days -7 (for the purposes of randomly assigning rats to groups by weight) and -1, weekly for 13 weeks, then every 4 weeks thereafter unless signs of clinical toxicity suggest more frequent weighing to facilitate monitoring of health status. Body weights will also be recorded at the time of necropsy.

## C. Clinical Observations

A careful clinical examination will be made once weekly. Observations will be detailed and carefully recorded using Path-Tox software. Observations will include, but not be limited to, evaluations of skin and fur, eyes and mucous membranes, respiratory and circulatory effects, autonomic effects such as salivation and central nervous system effects including tremors and convulsions, changes in the level of activity, gait, and posture, reactivity to handling or sensory stimuli, altered strength and stereotypies or bizarre behavior (e.g., self mutilation, walking backwards).

## D. Feed Consumption

Feed consumption will not be evaluated in this study.

## E. Gross Necropsy

A complete gross examination will be performed on all animals including those that die or are sacrificed in a moribund condition. All rats will be euthanized at the termination of the study using an intraperitoneal injection of euthasol. All rats will receive a full necropsy under the supervision of the Veterinary Pathologist according to LRRS SOPs. Necropsy technicians will have the most recent clinical observation report available to assist with identification and localization of any tissue masses.

Terminal body weights will be obtained, external surfaces of the body, orifices, and the cranial, thoracic, and abdominal cavities will be examined and blood for determinations of differential cell counts on blood smears will be taken by tail nick. The lung, liver, kidneys, adrenals, testes, epididymides, ovaries, uterus, spleen, brain, and heart will be weighed wet as soon as possible after collection to avoid drying. The tissues listed in Table B-2 will be preserved in 10% neutral buffered formalin for histopathological examination. Lungs will be inflation fixed by instillation of fixative through the trachea until the pleura is smooth. Tissues will be fixed a minimum of 48 hours before being trimmed.

Lesions will be described using a set of glossary terms for morphology, quantity, shape, color, consistency, and severity. All necropsy data will be entered into the Path-Tox database.

**Table B-2.**  
**Organs and Representative Samples to be taken for Histological Examination**

**Digestive System**

1. Salivary glands
2. Esophagus
3. Stomach
4. Duodenum
5. Jejunum
6. Ileum
7. Cecum
8. Colon
9. Rectum
10. Liver
11. Pancreas

**Nervous System**

1. Brain (including sections of medulla/pons, cerebellum, and cerebrum)
2. Pituitary
3. Peripheral nerve (sciatic or tibial, preferably in close proximity to the muscle)
4. Spinal cord (three levels: cervical, mid-thoracic, and lumbar)
5. Eyes (retina, optic nerve)

**Glandular System**

1. Adrenals
2. Parathyroid
3. Thyroid

**Respiratory System**

1. Trachea
2. Lung (infused with fixative)
3. Pharynx
4. Larynx
5. Nose
6. Paranasal Sinuses

Table B-2 continued

**Cardiovascular/Hematopoietic System**

1. Aorta
2. Heart
3. Bone Marrow (and/or fresh aspirate)
4. Lymph nodes (mandibular, mesenteric, bronchial, mediastinal)

## 5. Spleen

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**Urogenital System**

1. Kidneys
2. Urinary Bladder (infused with fixative)
3. Prostate
4. Testes
5. Epididymides
6. Seminal vesicle(s)
7. Uterus
8. Ovaries
9. Female mammary gland

**Other**

1. Tail (for identification)
2. Skin
3. All gross lesions and masses

Rats that die or are euthanized moribund will receive a complete necropsy as described above and histopathological evaluations as described below. Organ weights will be obtained for moribund animals but will not be obtained from dead animals.

**F. Histopathology**

Tissues to be examined will be trimmed, embedded in paraffin, sectioned at 5- $\mu$ m intervals, and stained with hematoxylin and eosin by trained technicians under the direction of the Veterinary Pathologist. Tissue management will be as per LRRRI SOPs. Slides will be examined microscopically by the Veterinary Pathologist who will have necropsy sheets available to describe any gross findings. Additional histologic stains will be used when necessary to clarify the nature of the lesions observed. The following will be evaluated as per OPPTS 870.4200: 1) full histopathology on the organs and tissues listed in Table B-2 of all animals in the control and high-level groups and all animals that died or were killed during the study; 2) all gross lesions in all animals; 3) the entire respiratory tract including lungs, pharynx, larynx, and paranasal sinuses, and 4) target organs as determined by histological findings in the high dose group.

If the results show substantial alteration of the animals' normal life span, the induction of effects that might affect a neoplastic response, or other effects that might compromise the significance of the data, the next lower level will be examined. Gross observations will be correlated with microscopic findings.

## G. Hematology

Blood smears will be obtained from all high dose and control group rats at 12 months, 18 months of exposure. The blood smears will be evaluated on all 50 slides/sex/group. If significant differences are observed, samples will be obtained from the remaining groups for evaluation. At terminal sacrifice a blood smears will be obtained from all rats. Differential blood counts will be performed on blood smears from rats in the high and control groups from the terminal sacrifice. If these data or data from the pathological examination so indicate, the differential blood counts will be performed for the next lower group. If clinical observations suggest deterioration in the health of the rats during the study, a differential blood count of the affected animals will be performed.

## XI. Proposed Statistical Analyses

Most statistical analyses will be performed using SAS Software.

### A. Survival Analysis

The probability of survival will be estimated by the product-limit of Kaplan and Meier (*J. Am. Stat. Assoc.* 53:457-481, 1958). All reported p-values for the survival analysis will be two-sided.

For a meaningful and valid interpretation of negative results, the number of animals in any group should not fall below 50 percent at 18 months. Survival in any group should not fall below 25 percent at 24 months.

### B. Calculation of Prevalence

The prevalences of all neoplastic and nonneoplastic lesions are given as the ratio of the number of affected animals to the number of animals with the site examined microscopically.

### C. Statistical Analysis of Prevalences of Neoplastic and Nonneoplastic Lesions

Most lesions in these studies are expected to be incidental to the cause of death, i.e., to have had little or no effect on the time of death of the animal. Thus, the most appropriate statistical methods for testing for exposure-response relationships will be logistic regression and the Hoel-Walburg test (Hoel and Walburg, *J. Natl. Cancer Inst.* 49:361-372, 1972), which assumes that the diagnosed lesions were discovered as the

result of death from an unrelated cause and thus did not affect the risk of death. These methods are based on comparison of the prevalences of lesions as a function of time. The logistic regression analysis will be used as a trend test for an exposure-response relationship between the exposure concentration groups. This logistic regression analysis is a prevalence method of Dinse and Lagakos (*Appl. Stat.* 32:236-248, 1983), which is further described and illustrated by Dinse and Haseman (*Fundam. Appl. Toxicol.* 6:44-52, 1986). The Hoel-Walburg test (Hoel and Walburg, 1972) will be used for pairwise comparisons between the exposed groups and controls. Both methods adjust for intercurrent mortality.

For the paired group comparisons to controls, the Hoel-Walburg method is similar to the likelihood score test for trend in the logistic regression model discussed above. However, as noted by Dinse and Lagakos (1983), some of the logistic regression coefficients cannot be computed when the animals in one exposure concentration group are all lesion free. Therefore, under these circumstances, the Hoel-Walburg test will be used to compare individual exposure groups to controls. The Hoel-Walburg test requires the grouping of animals into some chosen time intervals. Possible time intervals are 0-52 weeks, 53-78 weeks, 79-92 weeks, 93-105 weeks, and terminal sacrifices. These time intervals have been used by others (Haseman, *Environ. Health Perspect.* 58:385-392, 1984). In addition to those two methods, alternative methods of statistical analysis may be used. These include the life table test, sometimes referred to as the log-rank test (Cox, *J. Royal Stat. Soc. Brit.* 34:187-220, 1972; Tarone, *Biometrika* 62:679-682, 1975), which is appropriate for rapidly lethal lesions. Other methods are the two-sided Fisher's exact test and the Cochran-Armitage trend test (Armitage, In *Statistical Methods in Medical Research*, pp. 362-365, 1971; Gart *et al.*, *J. Natl. Cancer Inst.* 62:957-974, 1979), which are procedures based on the overall proportion of lesion-bearing animals. These tests are appropriate when survival is similar among exposure groups and controls. The prevalence of a lesion will be considered statistically significant if the level of significance by one or more of the statistical tests is  $< 0.05$ .

#### D. Analysis of Continuous Variables

Organ and body weights and hematology data that had approximately normal distributions will be analyzed by analysis of variance. Statistically significant effects will be subtested using the parametric multiple comparison procedures of Williams (*Biometrics* 27:103-117, 1971; *Biometrics* 28:519-531, 1972) and Dunnett (*J. Am. Stat. Assoc.* 650:1095-1121, 1955). Jonckheere's test (Jonckheere, *Biometrika* 41:133-145, 1954) will be used to assess the significance of the dose-response trends and to determine whether a trend-sensitive test (Williams' or Shirley's test [Williams, 1971; Shirley, *Biometrics* 33:386-389, 1977]) was more appropriate for pairwise comparisons than a test that does not assume a monotonic dose-response trend (Dunnett's or Dunn's test).

Organ weights will be recorded and statistically analyzed in the N module of the Path-Tox system. Data homogeneous by Bartlett's test will be statistically

compared using Dunnett's *t* test. Data found to be nonhomogeneous by Bartlett's test will be statistically compared using a modified *t* test.

## **XII. Maintenance of Raw Data, Records, and Specimens**

Specimens will be identified by test system, study, nature, and date of collection. All raw data and records that would be required to reconstruct the study will be maintained in the LRRRI archives for 10 years. The sponsor will be notified and will authorize in writing the destruction or transfer of any specimens, raw data and study records to Sponsor or to an archive specified by the Sponsor Contracting Representative.

## **XIII. Protocol Changes**

If any changes to the approved protocol are required, verbal agreement to the change will be made between the LRRRI Study Director and Sponsor. As soon as practical, the change, and the reason for it, will be written as a protocol amendment and signed by the Study Director and Sponsor Technical Representative.

## **XIV. Final Report**

A draft final report will be submitted to The Sponsor. The report will comply with GLP regulations and contain the elements specified in OPPTS 870.4200. The report will include a title page, abstract, introduction, methods, results, discussion, summary, bibliography, appendices, as well as a statement that the study complied with GLP requirements. LRRRI will submit the final study report to the Sponsor within 30 days after receiving comments on the draft report from the Sponsor.

**XV. Proposed Study Dates**

Initiation Date: May 23, 2001  
Experimental Start Date: May 23, 2001  
Experimental Completion Date: May, 2003

**XVI. Study Approval**

Sponsor Representative \_\_\_\_\_

Date: \_\_\_\_\_

LRRI Study Director Trent Benson

Date 5/22/01

Figure 1. Schematic of the Exposure Systems  
**Gasoline Vapor Exposure System**

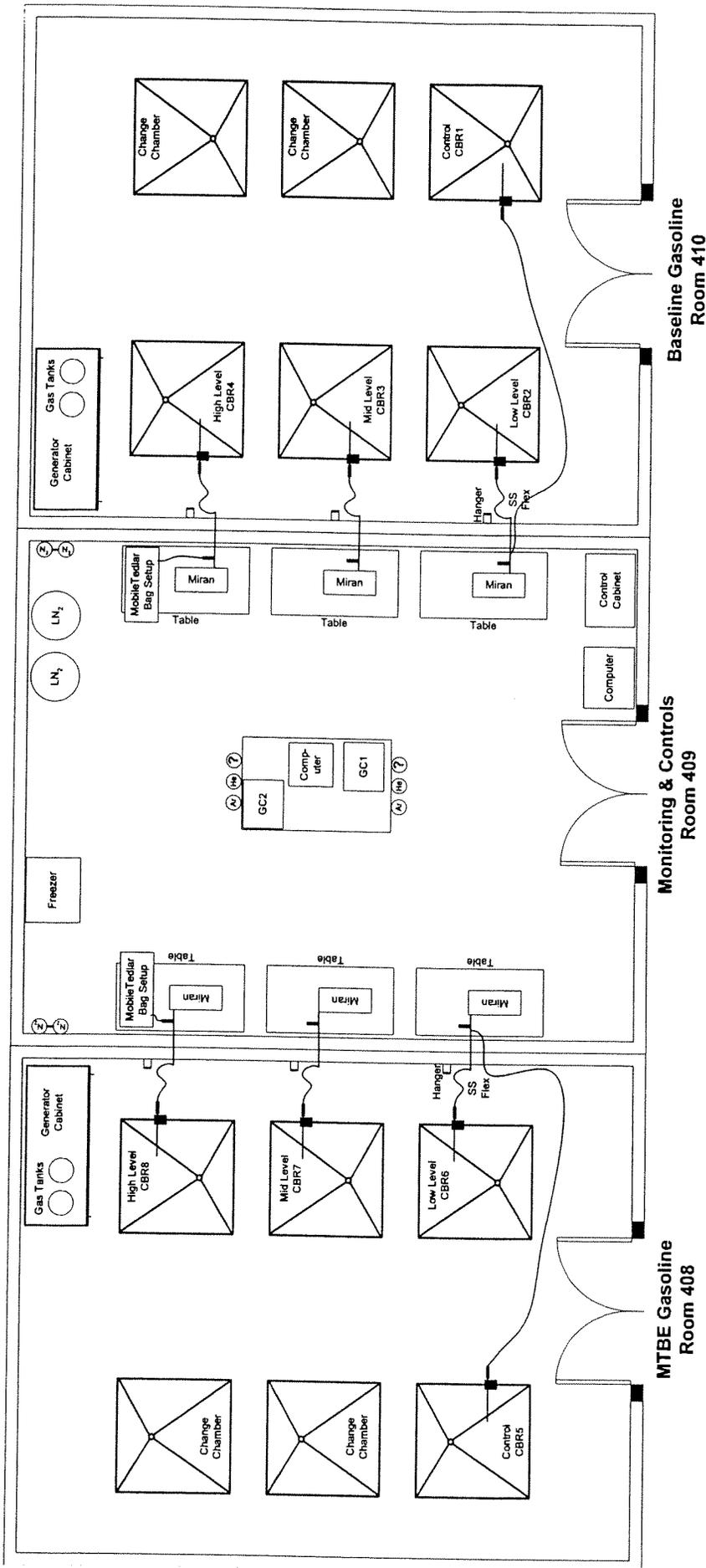
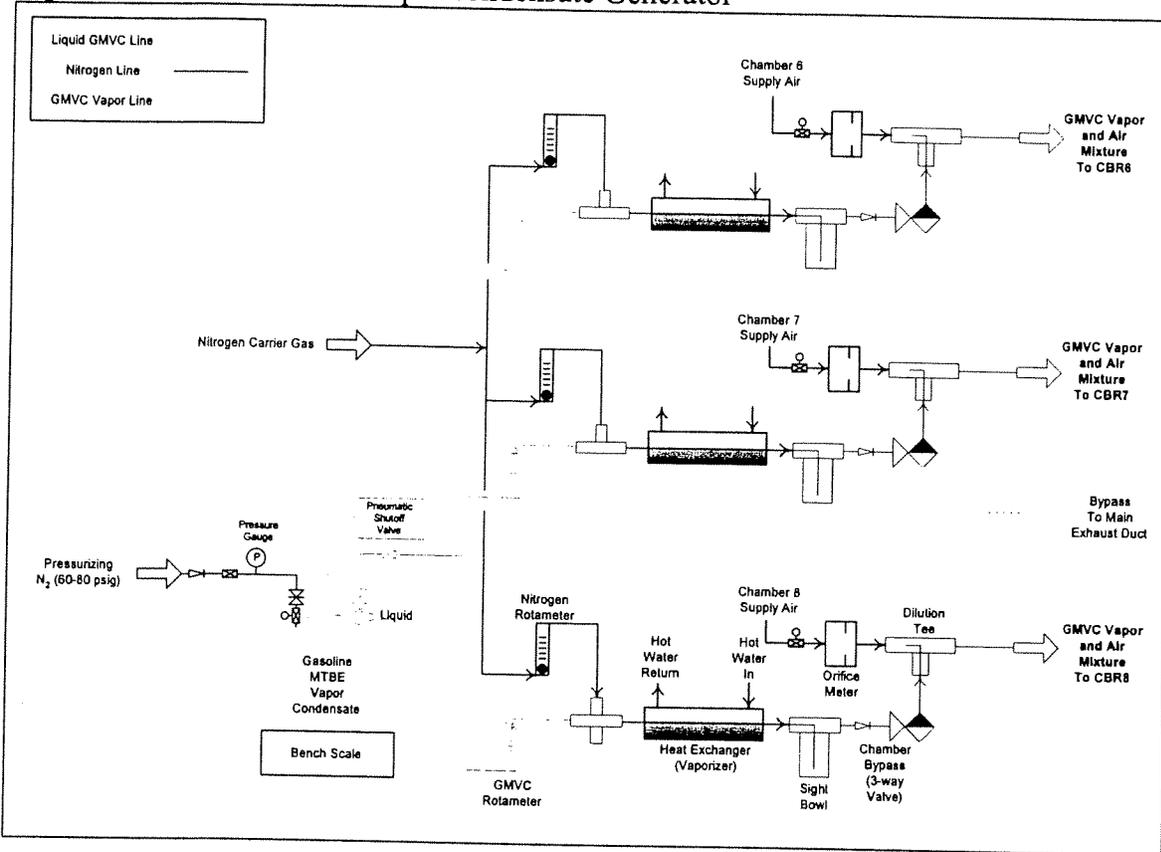


Figure 2. Gasoline MTBE vapor condensate Generator



Gasoline MTBE Vapor Condensate Vapor Generator

**XVI. Study Approval**

Sponsor Representative *[Signature]*  
Date: 05/21/01  
LRRR Study Director *[Signature]*  
Date 5/22/01

LOVELACE RESPIRATORY RESEARCH INSTITUTE (LRRRI)  
GLP PROTOCOL AMENDMENT

LRRRI Protocol Number: FY01-013

Title: 211(b) Chronic Carcinogenicity Study – Gasoline MTBE Vapor Condensate (GMVC)

Sponsor

Laboratory

American Petroleum Institute

Study Monitor

Study Director

Charles R. Clark PhD, DABT

Janet M. Benson, PhD, DABT

Amendment Number: 1

Effective date: August 22, 2001

This amendment modifies the following portions of the protocol:

Section VIII.C has been modified to revise information about environmental conditions in H2000 whole-body chambers.

1. Location of protocol change: Section VIII.C Environmental Conditions, page 5
2. Description of protocol change: as follows:

From: Chambers will be held at approximately 1 inch of water negative pressure with respect to the exposure room.

Temperatures will be held at 20°-24°C, and relative humidity will be held between 40-60%.

To: Chambers will be held slightly negative with respect to the exposure room.

Temperatures will be held at 20°-24°C, and relative humidity will be held between 30-70% as much as possible, with 40-60% being the desired range.

Rationale: The regulations indicate the chambers should be negative with respect to the room, but exact specifications are not indicated. Excursions from 40-70% will occur because relative humidity cannot be controlled between this range.

Protocol Amendment Approved:

\_\_\_\_\_  
Sponsor (Signature/date)

Janet Benson 8/23/01  
Study Director (Signature/date)

LOVELACE RESPIRATORY RESEARCH INSTITUTE (LRRRI)  
GLP PROTOCOL AMENDMENT

LRRRI Protocol Number: FY01-013

Title: \_211(b) Chronic Carcinogenicity Study - Gasoline MTBE Vapor Condensate

<u>Sponsor</u>	<u>Laboratory</u>
American Petroleum Institute	Lovelace Respiratory Research Institute

<u>Study Monitor</u>	<u>Study Director</u>
Charles R. Clark, PhD, DABT ConocoPhillips Industrial Hygiene and Toxicology Bartlesville, OK	Janet M. Benson LRRRI

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Amendment Number: 2

Effective date: May 22, 2003

This amendment modifies the following portions of the protocol:

**VIII.C. Environmental Conditions focuses on housing animals in inhalation chambers:**

To paraphrase:

- H2000 whole body inhalation chambers will be used to house the rats and to conduct the exposures.
- The rats will be held in separate 3 13/16 x 11 x 8 inches compartments within stainless steel baskets within each chamber.
- Temperatures will e held at 20 – 24 °C. Temperature, relative humidity and chamber airflow rates will be monitored continuously, 24 hours per day. Values for the three parameters will be recorded at 30-minute intervals.

VII.D. Diet and Drinking water states;

Food will be available at all times except during the 6-hour exposure period.

**Changes**

After the rats have completed 104 weeks of exposure, they will be transferred to Room 551 of the LRRRI animal facility. They will be housed individually in shoe box cages with cage board

(no wood chip bedding). Animals will be cared for as per LRR SOPs. Food (Teklad Certified Rodent Diet) and water will be available at all times. Environmental conditions are monitored using the Watchdog system. Temperature and relative humidity will be measured using a NIST traceable instrument. Values will be recorded manually by animal care personnel performing AM/PM checks for morbidity and mortality.

The changes are required because exposures of male and female rats were staggered by one week and because both sexes of each exposure group are housed in the same chamber. Since male rats are held without exposure until their scheduled sacrifice day, they need to be removed from the exposure chambers. Space within the exposure room precludes setting up control chambers to house males until their sacrifice. Transfer to shoebox cages for the week of the final sacrifice was considered to be the only viable solution. Females will be moved to shoebox cages for the week of final sacrifice to keep housing the same for both sexes

### IX.E. Gross Necropsy

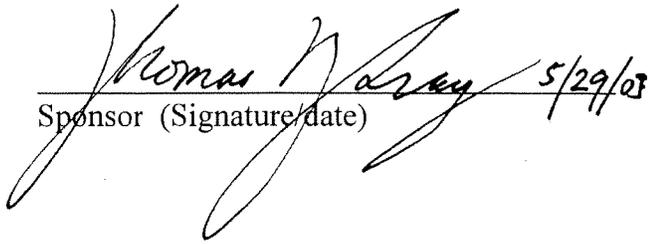
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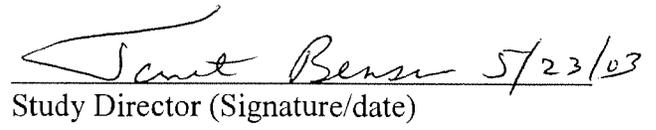
- “A complete gross examination will be performed on all animals including those that die or are sacrificed in a moribund condition.
- Terminal body weights will be obtained, external surfaces of the body, orifices, and the cranial, thoracic, and abdominal cavities will be examined and blood for determinations of differential cell counts on blood smears will be taken by tail nick.

### Changes

- A complete gross examination will be performed on all **core** animals including those that die or are sacrificed in a moribund condition. *This change is made to clarify that animals originally assigned to the surveillance group (Section VII.E.b) will not undergo a complete necropsy at terminal sacrifice after blood is obtained for serology.*
- Terminal body weights will be obtained, external surfaces of the body, orifices, and the cranial, thoracic, and abdominal cavities will be examined and blood for determinations of differential cell counts on blood smears will be taken by **cardiac puncture**. *Tail nick was the method of choice when animals were serially bled during the 2 year exposure. Since the animals are undergoing final sacrifice, it is much easier and faster to obtain an adequate blood sample by cardiac puncture.*

Protocol Amendment Approved:

  
Sponsor (Signature/date) 5/29/03

  
Study Director (Signature/date) 5/23/03

APPENDIX B

ANALYSES OF BULK TEST SUBSTANCE

- B-1 Interim Sponsor Gasoline MTBE Vapor Condensate Characterization  
(Gas Chromatographic Profile)
  
- B-2 Gasoline MTBE Vapor Condensate Analysis at LRRI (Gas Chromatographic  
Profile) of Individual 420-Pound Tanks Used During Study

B-1 Interim Sponsor Gasoline MTBE Vapor Condensate Characterization  
(Gas Chromatographic Profile)

**Results of MRD-00-713 Analysis**  
**(Gasoline MTBE Vapor Condensate - Lot Number API 00-02)**

Compound	Area-Percent
Isobutane	2.2
n-butane	11.1
Isopentane	31.0
n-pentane	9.1
trans-2-pentene	2.0
2-methyl 2-butene	2.9
MTBE	21.3
2,3-dimethylbutane	0.9
2-methylpentane	4.5
3-methylpentane	2.6
n-hexane	2.1
Methylcyclopentane	1.1
2,4-dimethylpentane	0.9
Benzene	1.5
2-methylhexane	1.0
2,3-dimethylpentane	1.0
3-methylhexane	1.1
Isooctane	1.2
Toluene	2.5

B-2 Gasoline MTBE Vapor Condensate Analysis at LRRRI  
(Gas Chromatographic Profile) of Individual 420-Pound Tanks Used During Study

# Protocol Number FY01-013

## Chronic Inhalation of Gasoline MTBE Vapor Condensate

### Test Article Characterization

Tank: A16\*\*

Date Used: 5-17-01 thru 6-28-01

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane			2.2
n-Butane			11.1
Isopentane			31.0
n-Pentane			9.1
trans-2-pentene			2.0
2-methyl-2-butene			2.9
MTBE/2,3-dimethylbutane			21.3
MTBE			0.9
2,3-dimethylbutane			4.5
2-methylpentane			2.6
3-methylpentane			2.1
n-Hexane			1.1
Methylcyclopentane			0.9
2,4-dimethylpentane			1.5
Benzene			1.0
2-methylhexane			1.0
2,3-dimethylpentane			1.1
3-methylhexane			1.2
Isooctane			2.5
Toluene			2.5
	0	0.0	100.00

\*\* Note: This tank was inadvertently not analyzed prior to use. However, hydrocarbon profiles were obtained during use. These results are included on the following pages. Animal exposures began on May 23, 2001, so chamber hydrocarbon characterization began on that date.

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )		Mid (10g/m <sup>3</sup> )		Mid (10g/m <sup>3</sup> )	
		Week Starting 5-23-01	Week Starting 5-28-01	Week Starting 5-23-01	Week Starting 5-28-01	Week Starting 5-23-01	Week Starting 5-28-01
Isobutane	2.2	2.5	2.2	2.2	2.2	2.1	2.3
n-butane	11.1	10.2	9.3	10.2	10.5	10.5	10.9
Isopentane	31.0	26.9	26.6	30.1	30.2	30.7	31.5
n-pentane	9.1	8.7	8.7	8.9	9.0	8.9	9.1
trans-2-pentene	2.0	2.9	2.7	2.1	2.2	2.1	2.1
2-methyl-2-butene	2.9	3.9	3.7	2.9	2.9	2.9	3.1
MTBE/2,3-dimethylbutane							
MTBE	21.3	20.9	20.7	23.0	22.7	22.8	22.9
2,3-dimethylbutane	0.9	0.9	0.9	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.6	5.2	4.6	4.4	4.4	4.5
3-methylpentane	2.6	2.7	3.1	2.4	2.6	2.6	2.6
n-hexane	2.1	2.2	2.5	2.1	2.2	2.2	2.0
Methylcyclopentane	1.1	2.1	1.5	1.2	1.0	1.2	1.1
2,4-dimethylpentane	0.9	2.3	0.9	1.1	1.0	0.9	0.9
Benzene	1.5	1.7	2.5	1.6	1.5	1.5	1.2
2-methylhexane	1.0	1.1	1.2	1.0	1.0	1.1	0.9
2,3-dimethylpentane	1.0	2.4	1.7	1.2	1.2	1.2	1.1
3-methylhexane	1.1	1.3	2.1	1.3	1.2	1.2	0.9
Isooctane	1.2	0.7	1.9	1.3	1.4	1.5	1.2
Toluene	2.5	2.0	2.5	1.8	1.7	1.3	0.8

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )								
	Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting				
	6-4-01	6-11-01	6-18-01	6-25-01	6-4-01	6-11-01	6-18-01	6-25-01	6-4-01	6-11-01	6-18-01	6-25-01	6-4-01	6-11-01	6-18-01	6-25-01	6-4-01	6-11-01	6-18-01	6-25-01	
Isobutane	2.6	2.2	2.2	2.3	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1
n-butane	8.8	9.1	9.6	9.8	9.8	10.2	10.4	10.5	10.3	10.2	10.4	10.5	10.3	10.9	10.7	10.5	10.9	10.7	10.5	10.5	10.5
Isopentane	24.9	26.0	26.8	26.2	26.2	29.9	30.0	30.2	29.8	29.9	30.0	30.2	29.8	31.9	31.1	30.7	31.9	31.1	30.7	30.6	30.6
n-pentane	7.7	8.5	7.8	8.6	8.6	8.8	8.8	8.9	8.9	8.8	8.8	8.9	8.9	9.1	9.1	8.9	9.1	9.1	8.9	8.9	8.9
trans-2-pentene	3.8	3.0	3.0	3.0	3.0	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.2	2.1	2.2	2.0	2.1	2.2	2.0	2.1	2.1
2-methyl-2-butene	4.0	4.3	3.7	3.6	3.6	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
MTBE/2,3-dimethylbutane																					
MTBE	20.9	21.8	21.0	19.0	19.0	22.6	23.4	21.9	22.4	22.6	23.4	21.9	22.4	23.0	22.5	22.3	23.0	22.5	22.3	22.3	22.3
2,3-dimethylbutane	0.9	0.9	0.9	0.8	0.8	1.0	1.0	0.9	0.9	1.0	1.0	0.9	0.9	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9
2-methylpentane	4.3	4.9	4.3	4.9	4.9	4.5	4.4	4.6	4.5	4.5	4.4	4.6	4.5	4.4	4.5	4.5	4.4	4.5	4.5	4.4	4.4
3-methylpentane	2.9	2.9	2.7	2.7	2.7	2.5	2.5	2.6	2.7	2.5	2.5	2.6	2.7	2.5	2.5	2.6	2.5	2.5	2.6	2.6	2.6
n-hexane	2.6	2.3	2.5	3.2	3.2	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	1.9	2.1	2.2	1.9	2.1	2.2	2.3	2.3
Methylcyclopentane	1.1	1.4	1.7	1.7	1.7	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.2	1.0	1.1	1.2	1.0	1.1	1.2	1.2	1.2
2,4-dimethylpentane	2.0	1.5	1.0	0.9	0.9	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.0	0.9	1.1	1.0	0.9	1.0	1.0
Benzene	2.0	2.2	1.8	2.4	2.4	2.0	1.8	1.7	2.0	2.0	1.8	1.7	2.0	1.1	1.5	1.6	1.1	1.5	1.6	1.7	1.7
2-methylhexane	2.0	1.0	1.4	1.9	1.9	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.1	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0
2,3-dimethylpentane	2.7	2.2	2.2	2.3	2.3	1.3	1.2	1.3	1.3	1.3	1.2	1.3	1.3	1.0	1.1	1.1	1.0	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.5	1.6	1.0	1.0	1.1	1.2	1.2	1.1	1.1	1.2	1.2	1.1	1.0	1.1	1.2	1.0	1.1	1.2	1.2	1.2
Isooctane	1.8	1.9	2.2	1.8	1.8	1.4	1.4	1.3	1.4	1.4	1.2	1.3	1.4	1.2	1.2	1.3	1.2	1.2	1.3	1.4	1.4
Toluene	2.9	2.3	3.6	3.9	3.9	2.0	1.6	2.2	2.0	2.0	1.6	2.2	2.0	0.6	1.4	2.0	0.6	1.4	2.0	2.0	2.0

## Protocol Number FY01-013

### Chronic Inhalation of Gasoline MTBE Vapor Condensate

#### Test Article Characterization

Tank: A20

Date: 6-28-01

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	12081	1.8	2.2
n-Butane	62083	9.3	11.1
Isopentane	200525	29.9	31.0
n-Pentane	59754	8.9	9.1
trans-2-pentene	13883	2.1	2.0
2-methyl-2-butene	19538	2.9	2.9
MTBE/2,3-dimethylbutane	163911		
MTBE	157273	23.4	21.3
2,3-dimethylbutane	6638	1.0	0.9
2-methylpentane	31116	4.6	4.5
3-methylpentane	17790	2.7	2.6
n-Hexane	15557	2.3	2.1
Methylcyclopentane	7639	1.1	1.1
2,4-dimethylpentane	6766	1.0	0.9
Benzene	11990	1.8	1.5
2-methylhexane	7347	1.1	1.0
2,3-dimethylpentane	8189	1.2	1.0
3-methylhexane	8232	1.2	1.1
Isooctane	9140	1.4	1.2
Toluene	15135	2.3	2.5
	670676	100.0	100.00

Chronic Inhalation of Gasoline MTBE Vapor Condensate

Test Article Characterization

Tank: A19

Date: 9-12-01

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	51229	1.9	2.2
n-Butane	263219	10.0	11.1
Isopentane	812300	30.7	31.0
n-Pentane	234297	8.9	9.1
trans-2-pentene	52400	2.0	2.0
2-methyl-2-butene	75531	2.9	2.9
MTBE/2,3-dimethylbutane	630242		
MTBE	604717	22.9	21.3
2,3-dimethylbutane	25525	1.0	0.9
2-methylpentane	119500	4.5	4.5
3-methylpentane	68100	2.6	2.6
n-Hexane	55671	2.1	2.1
Methylcyclopentane	29787	1.1	1.1
2,4-dimethylpentane	24949	0.9	0.9
Benzene	44393	1.7	1.5
2-methylhexane	27217	1.0	1.0
2,3-dimethylpentane	28682	1.1	1.0
3-methylhexane	29847	1.1	1.1
Isooctane	33116	1.3	1.2
Toluene	62034	2.3	2.5
	2642514	100.0	100.00

## Chronic Inhalation of Gasoline MTBE Vapor Condensate

## Test Article Characterization

Tank: A17

Date: 11-6-01

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	26424	1.9	2.2
n-Butane	134934	9.8	11.1
Isopentane	415358	30.1	31.0
n-Pentane	122348	8.9	9.1
trans-2-pentene	27743	2.0	2.0
2-methyl-2-butene	41282	3.0	2.9
MTBE/2,3-dimethylbutane	334613		
MTBE	321061	23.3	21.3
2,3-dimethylbutane	13552	1.0	0.9
2-methylpentane	62929	4.6	4.5
3-methylpentane	36265	2.6	2.6
n-Hexane	29880	2.2	2.1
Methylcyclopentane	15856	1.1	1.1
2,4-dimethylpentane	13469	1.0	0.9
Benzene	23012	1.7	1.5
2-methylhexane	15056	1.1	1.0
2,3-dimethylpentane	15931	1.2	1.0
3-methylhexane	16258	1.2	1.1
Isooctane	18415	1.3	1.2
Toluene	30164	2.2	2.5
	1379937	100.0	100.00

## Chronic Inhalation of Gasoline MTBE Vapor Condensate

## Test Article Characterization

Tank: A18

Date: 1-11-02

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	29480	2.0	2.2
n-Butane	147857	10.2	11.1
Isopentane	443321	30.7	31.0
n-Pentane	129660	9.0	9.1
trans-2-pentene	28812	2.0	2.0
2-methyl-2-butene	43392	3.0	2.9
MTBE/2,3-dimethylbutane	344481		
MTBE	330530	22.9	21.3
2,3-dimethylbutane	13951	1.0	0.9
2-methylpentane	65553	4.5	4.5
3-methylpentane	37696	2.6	2.6
n-Hexane	30671	2.1	2.1
Methylcyclopentane	16256	1.1	1.1
2,4-dimethylpentane	13752	1.0	0.9
Benzene	22229	1.5	1.5
2-methylhexane	14513	1.0	1.0
2,3-dimethylpentane	15597	1.1	1.0
3-methylhexane	16365	1.1	1.1
Isooctane	18405	1.3	1.2
Toluene	26655	1.8	2.5
	1444695	100.0	100.00

Chronic Inhalation of Gasoline MTBE Vapor Condensate

Test Article Characterization

Tank: A25

Date: 3-8-02

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	30191	2.1	2.2
n-Butane	148574	10.4	11.1
Isopentane	432770	30.3	31.0
n-Pentane	127300	8.9	9.1
trans-2-pentene	28586	2.0	2.0
2-methyl-2-butene	42646	3.0	2.9
MTBE/2,3-dimethylbutane	332844		
MTBE	319364	22.4	21.3
2,3-dimethylbutane	13480	0.9	0.9
2-methylpentane	64226	4.5	4.5
3-methylpentane	36804	2.6	2.6
n-Hexane	30358	2.1	2.1
Methylcyclopentane	16067	1.1	1.1
2,4-dimethylpentane	14764	1.0	0.9
Benzene	23720	1.7	1.5
2-methylhexane	14673	1.0	1.0
2,3-dimethylpentane	15357	1.1	1.0
3-methylhexane	16547	1.2	1.1
Isooctane	18225	1.3	1.2
Toluene	32742	2.3	2.5
	1426394	100.0	100.00

**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Test Article Characterization**

Tank: A24

Date: 5-8-02

<b>Component</b>	<b>Measured Area</b>	<b>Measured Area %</b>	<b>EMBSI Area %</b>
Isobutane	24435	1.9	2.2
n-Butane	125678	9.7	11.1
Isopentane	390333	30.3	31.0
n-Pentane	115588	9.0	9.1
trans-2-pentene	26055	2.0	2.0
2-methyl-2-butene	39448	3.1	2.9
MTBE/2,3-dimethylbutane	306730		
MTBE	294307	22.8	21.3
2,3-dimethylbutane	12423	1.0	0.9
2-methylpentane	59647	4.6	4.5
3-methylpentane	34281	2.7	2.6
n-Hexane	28269	2.2	2.1
Methylcyclopentane	14878	1.2	1.1
2,4-dimethylpentane	12689	1.0	0.9
Benzene	21601	1.7	1.5
2-methylhexane	13660	1.1	1.0
2,3-dimethylpentane	14362	1.1	1.0
3-methylhexane	15565	1.2	1.1
Isooctane	17036	1.3	1.2
Toluene	29512	2.3	2.5
	1289767	100.0	100.00

**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Test Article Characterization**

Tank: A23

Date: 7-9-02

<b>Component</b>	<b>Measured Area</b>	<b>Measured Area %</b>	<b>EMBSI Area %</b>
Isobutane	24066	1.9	2.2
n-Butane	124208	9.6	11.1
Isopentane	390755	30.3	31.0
n-Pentane	114755	8.9	9.1
trans-2-pentene	26072	2.0	2.0
2-methyl-2-butene	37329	2.9	2.9
MTBE/2,3-dimethylbutane	316483		
MTBE	303665	23.6	21.3
2,3-dimethylbutane	12818	1.0	0.9
2-methylpentane	58671	4.6	4.5
3-methylpentane	33731	2.6	2.6
n-Hexane	27840	2.2	2.1
Methylcyclopentane	14535	1.1	1.1
2,4-dimethylpentane	11639	0.9	0.9
Benzene	21799	1.7	1.5
2-methylhexane	13446	1.0	1.0
2,3-dimethylpentane	14314	1.1	1.0
3-methylhexane	15329	1.2	1.1
Isooctane	16033	1.2	1.2
Toluene	27858	2.2	2.5
	1288863	100.0	100.00

**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Test Article Characterization**

Tank: A12

Date: 9/12/02

<b>Component</b>	<b>Measured Area</b>	<b>Measured Area %</b>	<b>EMBSI Area %</b>
Isobutane	45580	1.8	2.2
n-Butane	239088	9.5	11.1
Isopentane	767122	30.6	31.0
n-Pentane	223541	8.9	9.1
trans-2-pentene	50305	2.0	2.0
2-methyl-2-butene	71894	2.9	2.9
MTBE/2,3-dimethylbutane	606223		
MTBE	581671	23.2	21.3
2,3-dimethylbutane	24552	1.0	0.9
2-methylpentane	115101	4.6	4.5
3-methylpentane	65991	2.6	2.6
n-Hexane	53855	2.1	2.1
Methylcyclopentane	29026	1.2	1.1
2,4-dimethylpentane	24922	1.0	0.9
Benzene	42066	1.7	1.5
2-methylhexane	25308	1.0	1.0
2,3-dimethylpentane	27214	1.1	1.0
3-methylhexane	29182	1.2	1.1
Isooctane	31795	1.3	1.2
Toluene	56890	2.3	2.5
	2505103	100.0	100.00

Chronic Inhalation of Gasoline MTBE Vapor Condensate

Test Article Characterization

Tank: A14

Date: 11-15-02

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	42824	2.0	2.2
n-Butane	218817	10.0	11.1
Isopentane	675840	30.9	31.0
n-Pentane	196576	9.0	9.1
trans-2-pentene	44286	2.0	2.0
2-methyl-2-butene	63487	2.9	2.9
MTBE/2,3-dimethylbutane	521733		
MTBE	500603	22.9	21.3
2,3-dimethylbutane	21130	1.0	0.9
2-methylpentane	99990	4.6	4.5
3-methylpentane	57089	2.6	2.6
n-Hexane	46587	2.1	2.1
Methylcyclopentane	24856	1.1	1.1
2,4-dimethylpentane	20612	0.9	0.9
Benzene	35996	1.6	1.5
2-methylhexane	21943	1.0	1.0
2,3-dimethylpentane	23244	1.1	1.0
3-methylhexane	24653	1.1	1.1
Isooctane	26029	1.2	1.2
Toluene	45653	2.1	2.5
	2190215	100.0	100.00

## Chronic Inhalation of Gasoline MTBE Vapor Condensate

## Test Article Characterization

A26

Date: 01-08-03

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	16992	2.0	2.2
n-Butane	84584	9.8	11.1
Isopentane	260944	30.2	31.0
n-Pentane	77271	8.9	9.1
trans-2-pentene	18204	2.1	2.0
2-methyl-2-butene	25329	2.9	2.9
MTBE/2,3-dimethylbutane	209129		
MTBE	200659	23.2	21.3
2,3-dimethylbutane	8470	1.0	0.9
2-methylpentane	39996	4.6	4.5
3-methylpentane	22850	2.6	2.6
n-Hexane	18538	2.1	2.1
Methylcyclopentane	10147	1.2	1.1
2,4-dimethylpentane	8358	1.0	0.9
Benzene	14339	1.7	1.5
2-methylhexane	8907	1.0	1.0
2,3-dimethylpentane	9820	1.1	1.0
3-methylhexane	10353	1.2	1.1
Isooctane	11137	1.3	1.2
Toluene	18261	2.1	2.5
	865159	100.0	100.00

Chronic Inhalation of Gasoline MTBE Vapor Condensate

Test Article Characterization

A28

Date: 03-05-03

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	44214	2.1	2.2
n-Butane	217059	10.5	11.1
Isopentane	632513	30.7	31.0
n-Pentane	183048	8.9	9.1
trans-2-pentene	41103	2.0	2.0
2-methyl-2-butene	59275	2.9	2.9
MTBE/2,3-dimethylbutane	478721		
MTBE	459333	22.3	21.3
2,3-dimethylbutane	19388	0.9	0.9
2-methylpentane	91992	4.5	4.5
3-methylpentane	52907	2.6	2.6
n-Hexane	45938	2.2	2.1
Methylcyclopentane	23132	1.1	1.1
2,4-dimethylpentane	19333	0.9	0.9
Benzene	33928	1.6	1.5
2-methylhexane	20903	1.0	1.0
2,3-dimethylpentane	21847	1.1	1.0
3-methylhexane	23593	1.1	1.1
Isooctane	25589	1.2	1.2
Toluene	44920	2.2	2.5
	2060015	100.0	100.00

**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Test Article Characterization**

Tank: A21

Date: 5-7-03

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	21937	1.9	2.2
n-Butane	111573	9.8	11.1
Isopentane	345426	30.4	31.0
n-Pentane	101685	9.0	9.1
trans-2-pentene	23044	2.0	2.0
2-methyl-2-butene	33177	2.9	2.9
MTBE/2,3-dimethylbutane	270420		
MTBE	259468	22.9	21.3
2,3-dimethylbutane	10952	1.0	0.9
2-methylpentane	51918	4.6	4.5
3-methylpentane	29982	2.6	2.6
n-Hexane	24743	2.2	2.1
Methylcyclopentane	12984	1.1	1.1
2,4-dimethylpentane	11694	1.0	0.9
Benzene	19335	1.7	1.5
2-methylhexane	11888	1.0	1.0
2,3-dimethylpentane	12741	1.1	1.0
3-methylhexane	13297	1.2	1.1
Isooctane	14201	1.3	1.2
Toluene	24941	2.2	2.5
	1134986	100.0	100.00

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Test Article Characterization**

Tank: A27

Date: 7-8-02

Component	Measured Area	Measured Area %	EMBSI Area %
Isobutane	24022	1.9	2.2
n-Butane	124486	9.6	11.1
Isopentane	393749	30.4	31.0
n-Pentane	115760	8.9	9.1
trans-2-pentene	26734	2.1	2.0
2-methyl-2-butene	37306	2.9	2.9
MTBE/2,3-dimethylbutane	316740		
MTBE	303912	23.5	21.3
2,3-dimethylbutane	12828	1.0	0.9
2-methylpentane	59654	4.6	4.5
3-methylpentane	34191	2.6	2.6
n-Hexane	28080	2.2	2.1
Methylcyclopentane	14784	1.1	1.1
2,4-dimethylpentane	12814	1.0	0.9
Benzene	21204	1.6	1.5
2-methylhexane	13689	1.1	1.0
2,3-dimethylpentane	14324	1.1	1.0
3-methylhexane	15159	1.2	1.1
Isooctane	16559	1.3	1.2
Toluene	26016	2.0	2.5
	1295271	100.0	100.00

No major shifts in composition were observed:

BMS 7-9-02

Reviewed By:

AG 12-19-02

**DATA QC CHECKED**  
 BY RF DATE 8/1/02

APPENDIX C

RESULTS OF PERIODIC SEROLOGICAL EVALUATIONS



50<sup>th</sup>  
1947-1997

Respiratory Research Institute

Lovelace Biomedical and  
Environmental Research Institute  
PO Box 5890  
Albuquerque, New Mexico 87185

May 22 2001

BioReliance  
Attention: Rodent and Rabbit Laboratory  
9630 Medical Center Drive  
Rockville, MD 20850-3300

Dear Sir/Ms.:

Please determine antibody titers, 80-219, on the enclosed 5 rat sera and 80-222 on the enclosed 2 mouse sera. See attached Rodent and Rabbit Laboratory Order Form.

Samples have **not** been diluted or heat inactivated.

Please bill on receipt of samples. Purchase order JK010469 will be mailed under a separate cover.

Cordially,

David G. Burt, DVM  
Attending Veterinarian  
505-845-1018  
FAX: 505-845-1198

Enclosures a/s

COPY

## SAMPLE SUBMISSION FORM RODENT & RABBIT LABORATORY

CUSTOMER NAME David G. Burt  
 COMPANY NAME Lovelace Respiratory Res. Inst  
 ADDRESS P.O. Box 5890  
Albuquerque, NM 87185  
 PHONE (505) 845-1018  
 FAX # (505) 845-1198

P.O. NUMBER JK010469  
 BILLING ADDRESS Same  
Accounts Payable Contact Name  
 ADDRESS \_\_\_\_\_  
 CHECK IF PAYING BY CREDIT CARD \_\_\_\_\_  
 PHONE \_\_\_\_\_ FAX \_\_\_\_\_

Authorized Signature \_\_\_\_\_  
 Lab Contact Name (and phone if different than above) \_\_\_\_\_

DATE SHIPPED 5-22-01 # OF SAMPLES 7

KNOWN/SUSPECTED HUMAN PATHOGEN? No

Special Instructions FAX results, mail hard copy  
Mouse and Rat samples should be diluted and heat inactivated, see reverse.

SAMPLE ID (Per vial Label)	SPECIES	DILUTED? Y/N	HEAT INACTIVATED? Y/N	TEST CATALOG#	CATALOG DESCRIPTION
M1264	Rat	N	N	80-219	Rat Level II Complete
M1265	↓	↓	↓	↓	Antibody Profile
M1266	↓	↓	↓	↓	↓
M1267	↓	↓	↓	↓	↓
M1268	↓	↓	↓	↓	↓
M 823	Mouse	↓	↓	80-222	Mouse Intermediate
M 824	↓	↓	↓	↓	Antibody Profile

See Shipping Instructions and Terms and Conditions of Sale on the reverse.  
 Any questions, call Client Services at 301.610.2227 or 800.756.5658 x2227.



BIORELIANCE CORPORATION  
 14920 BROSCIARY ROAD  
 ROCKVILLE, MARYLAND 20850-3349 USA  
 PHONE: 301.738.1000 • FAX: 301.738.1036

Our Code MR A026  
 Page 1 JK010469

TO: David G. Burt, DVM  
 Lovelace Respiratory Research Inst.  
 Inhalation Toxicology  
 P.O. Box 5890  
 Albuquerque, NM 87185

FROM: Kathleen M. Vincent <sup>KM</sup>  
 DATE: May 29, 2001  
 SPECIMEN: 5 Rat & 2 Mouse Sera  
 RECEIVED: May 23, 2001

RECEIVED  
 MAY 29 2001

RESULTS: None of the tests were positive.

Sample ID	ELISA					
	CARB	MPul	PVM	RCV/SDA	Reo	Sendai
M1264	0.00	0.08	0.02	0.04	0.00	0.01
M1265	0.08	0.14	0.06	0.12	0.00	0.05
M1266	0.07	0.01	0.06	0.12	0.00	0.03
M1267	0.00	0.05	0.03	0.09	0.00	0.01
M1268	0.00	0.08	0.01	0.11	0.00	0.03

Sample ID	IFA			HAI	
	LCM	Parvo	RCV/SDA	H-1	KRV
M1264	-	-	-	-	-
M1265	-	-	-	-	-
M1266	-	-	-	-	-
M1267	-	-	-	-	-
M1268	-	-	-	-	-

Sample ID	----- ELISA -----					
	CARB	EDIM	GDVII	LCM	MHV	MPu1
M823	0.00	0.09	0.01	0.05	0.03	0.01
M824	0.00	0.12	0.02	0.01	0.07	0.04

Sample ID	--- ELISA ---		IFA	HAI
	PVM	Sendai	Parvo	MVM
M823	0.01	0.02	-	-
M824	0.02	0.05	-	-

ELISA: Positive value is  $\geq 0.17$  OD units  
 CARB only  $\geq 0.50$  OD units is positive  
 IFA: + = positive; - = negative  
 HAI: Numerical value = positive; - = negative  
 I: See IFA column for test result



Respiratory Research Institute

Lovelace Biomedical and  
Environmental Research Institute

PO Box 5890  
Albuquerque, New Mexico 87185



May 30 2001

BioReliance  
Attention: Rodent and Rabbit Laboratory  
9630 Medical Center Drive  
Rockville, MD 20850-3300

Dear Sir/Ms.:

Please determine antibody titers, 80-219, on the enclosed 5 rat sera. See attached Rodent and Rabbit Laboratory Order Form.

Samples have **not** been diluted or heat inactivated.

Please bill on receipt of samples. Purchase order JK010475 will be mailed under a separate cover.

Cordially,

A handwritten signature in black ink that reads 'David G. Burt'.

David G. Burt, DVM  
Attending Veterinarian  
505-845-1018  
FAX: 505-845-1198

Enclosures a/s

Exact copy of original document  
By J. Benson Date: 7-7-04

*Curing Respiratory Disease*

**SAMPLE SUBMISSION FORM  
RODENT & RABBIT LABORATORY**

CUSTOMER NAME David G. Burt  
 COMPANY NAME Lovelace Respiratory Res. Inst.  
 ADDRESS P.O. Box 5890  
Albuquerque, NM 87185  
 PHONE (505) 845-1018  
 FAX # (505) 845-1198

P.O. NUMBER JK010475  
 BILLING ADDRESS Same  
Accounts Payable Contact Name  
 ADDRESS \_\_\_\_\_  
 CHECK IF PAYING BY CREDIT CARD \_\_\_\_\_  
 PHONE \_\_\_\_\_ FAX \_\_\_\_\_

Authorized Signature \_\_\_\_\_  
 Lab Contact Name (and phone if different than above) \_\_\_\_\_

DATE SHIPPED 5-30-01 # OF SAMPLES 5

KNOWN/SUSPECTED HUMAN PATHOGEN? No

Special Instructions FAX results mail hardcopy  
Mouse and Rat samples should be diluted and heat inactivated, see reverse.

SAMPLE ID (Per vial Label)	SPECIES	DILUTED? Y/N	HEAT INACTIVATED? Y/N	TEST CATALOG#	CATALOG DESCRIPTION
26	Rat	N	N	80-219	Rat Level II Complete
32	↓	↓	↓	↓	Antibody Profile
43	↓	↓	↓	↓	↓
199	↓	↓	↓	↓	↓
210	↓	↓	↓	↓	↓

Exact copy of original document  
 By: B. Bens Date: 7-7-04

See Shipping Instructions and Terms and Conditions of Sale on the reverse.  
 Any questions, call Client Services at 301.610.2227 or 800.756.5658 x2227.



BIORELIANCE CORPORATION  
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 ROCKVILLE, MARYLAND 20850-3349 USA  
 PHONE: 301.738.1000 • FAX: 301.738.1036

Our Code MR A105  
 Page 1 JK010475

TO: David G. Burt, DVM  
 Lovelace Respiratory Research Inst.  
 Inhalation Toxicology  
 P.O. Box 5890  
 Albuquerque, NM 87185

FROM: Kathleen M. Vincent <sup>KV</sup>  
 DATE: June 5, 2001  
 SPECIMEN: 5 rat sera  
 RECEIVED: May 31, 2001

RESULTS: None of the tests were positive.

Sample ID	----- ELISA -----					
	CARB	MPul	PVM	RCV/SDA	Reo	Sendai
26	0.01	0.05	0.00	0.05	0.00	0.02
32	0.00	0.02	0.00	0.05	0.00	0.00
43	0.00	0.03	0.00	0.03	0.00	0.00
199	0.00	0.06	0.00	0.02	0.00	0.00
210	0.00	0.00	0.00	0.04	0.00	0.00

Sample ID	---- IFA ----		---- HAI ----	
	LCM	Parvo	H-1	KRV
26	-	-	-	-
32	-	-	-	-
43	-	-	-	-
199	-	-	-	-
210	-	-	-	-

ELISA: Positive value is  $\geq 0.17$  OD units  
 CARB only  $\geq 0.50$  OD units is positive  
 IFA: + = positive; - = negative  
 HAI: Numerical value = positive; - = negative

Exact copy of original document  
 By: J. Stem Date: 7-7-04



**Lovelace**  
Respiratory Research Institute

December 17, 2001

BioReliance  
Attention: Rodent and Rabbit Laboratory  
9630 Medical Center Drive  
Rockville, MD 20850-3300

Dear Sir/Ms.:

Please determine antibody titers, 80-219 on the enclosed 10 rat sera. See attached Rodent and Rabbit Laboratory Order Form.

Samples have **not** been diluted or heat inactivated.

Please bill on receipt of samples. Purchase order LV020176 will be mailed under a separate cover.

Cordially,

David G. Burt, DVM  
Attending Veterinarian  
505-348-9404  
FAX: 505-348-4980

Enclosures a/s

**COPY**

*Curing Respiratory Disease*

## SAMPLE SUBMISSION FORM RODENT & RABBIT LABORATORY

CUSTOMER NAME David G. Burt P.O. NUMBER LV020176  
 COMPANY NAME Lovelace Respiratory Res Inst BILLING ADDRESS Same  
Accounts Payable Contact Name  
 ADDRESS 2425 Ridgcrest Dr. SE  
Albuquerque, NM 87108  
 PHONE (505) 348-9404 ADDRESS \_\_\_\_\_  
 CHECK IF PAYING BY CREDIT CARD \_\_\_\_\_  
 FAX # (505) 348-4980 PHONE \_\_\_\_\_ FAX \_\_\_\_\_  
 Authorized Signature \_\_\_\_\_  
 Lab Contact Name (and phone if different than above) \_\_\_\_\_  
 DATE SHIPPED 12-17-01 # OF SAMPLES 10  
 KNOWN/SUSPECTED HUMAN PATHOGEN? No  
 Special Instructions FAX results, mail hardcopy  
Mouse and Rat samples should be diluted and heat inactivated, see reverse.

SAMPLE ID (Per vial Label)	SPECIES	DILUTED? Y/N	HEAT INACTIVATED? Y/N	TEST CATALOG#	CATALOG DESCRIPTION
S11	Rat	N	N	80-219	Rat Level II Complete
S12	↓	↓	↓	↓	Antibody Profile
S13	↓	↓	↓	↓	↓
S14	↓	↓	↓	↓	↓
S15	↓	↓	↓	↓	↓
S16	↓	↓	↓	↓	↓
S17	↓	↓	↓	↓	↓
S18	↓	↓	↓	↓	↓
S19	↓	↓	↓	↓	↓
S20	↓	↓	↓	↓	↓

COPY

See Shipping Instructions and Terms and Conditions of Sale on the reverse.  
 Any questions, call Client Services at 301.610.2227 or 800.756.5658 x2227.

PR1104U0101





BIORELIANCE CORPORATION  
14920 BROSCHART ROAD  
ROCKVILLE, MARYLAND 20850-3349 USA  
PHONE: 301.738.1000 • FAX: 301.738.1036

Our Code MR C043 *xc*  
Page 1 LV020176

TO: David G. Burt, DVM  
Lovelace Respiratory Research Inst.  
Inhalation Toxicology  
2425 Ridgecrest Drive SE  
Albuquerque, NM 87108

FROM: Kathleen M. Vincent *KV*  
DATE: December 20, 2001  
SPECIMEN: 10 rat sera  
RECEIVED: December 18, 2001

RESULTS: None of the tests were positive.

See attached tables for test results

Exact copy of original document  
By: JTBenn Date: 9-25-02

*Rec'd*  
*01-02-02*  
*[Signature]*

Sample ID	ELISA										HAI	KRV
	CARB	MPul	PVM	RCV/SDA	Reo	Sendai	LCM	IFA	Parvo	H-1		
511	0.19	0.05	0.00	0.00	0.00	0.02	-	-	-	-	-	-
512	0.14	0.04	0.00	0.00	0.00	0.03	-	-	-	-	-	-
513	0.06	0.03	0.00	0.00	0.00	0.01	-	-	-	-	-	-
514	0.14	0.04	0.00	0.00	0.00	0.01	-	-	-	-	-	-
515	0.17	0.03	0.00	0.00	0.00	0.02	-	-	-	-	-	-
516	0.09	0.02	0.00	0.00	0.00	0.01	-	-	-	-	-	-
517	0.05	0.01	0.00	0.00	0.00	0.01	-	-	-	-	-	-
518	0.01	0.01	0.00	0.00	0.00	0.01	-	-	-	-	-	-
519	0.03	0.02	0.00	0.00	0.00	0.01	-	-	-	-	-	-
520	0.06	0.01	0.00	0.00	0.00	0.01	-	-	-	-	-	-

ELISA: Positive value is >= 0.17 OD units  
 CARB only >=0.50 OD units is positive  
 + = positive; - = negative  
 Numerical value = positive; - = negative

Exact copy of original document  
 By: J. Hens Date: 9-25-03



July 15, 2002

BioReliance  
Attention: Rodent and Rabbit Laboratory  
9630 Medical Center Drive  
Rockville, MD 20850-3300

Dear Sir/Ms.:

Please determine antibody titers, 80-219 on the enclosed 10 rat sera. See attached Rodent and Rabbit Laboratory Order Form.

Samples have **not** been diluted or heat inactivated.

Please bill on receipt of samples. Purchase order JK020972 will be mailed under a separate cover.

Cordially,

A handwritten signature in cursive script that reads 'David G. Burt'.

David G. Burt, DVM  
Attending Veterinarian  
505-348-9404  
FAX: 505-348-4980

Enclosures a/s

Study Number FY01-013

## SAMPLE SUBMISSION FORM RODENT & RABBIT LABORATORY

CUSTOMER NAME David G. Burt P.O. NUMBER JK020972  
 COMPANY NAME Lovelace Respiratory Res Inst BILLING ADDRESS Same  
 ADDRESS 2425 Ridgecrest Dr. SE Accounts Payable Contact Name  
Albuquerque, NM 87108  
 PHONE (505) 348-9404 ADDRESS \_\_\_\_\_  
 FAX # (505) 348-4980 CHECK IF PAYING BY CREDIT CARD \_\_\_\_\_  
 AUTHORIZED SIGNATURE \_\_\_\_\_ PHONE \_\_\_\_\_ FAX \_\_\_\_\_  
 Lab Contact Name (and phone if different than above) \_\_\_\_\_  
 DATE SHIPPED 7-15-02 # OF SAMPLES 10  
 KNOWN/SUSPECTED HUMAN PATHOGEN? No  
 Special Instructions FAX results, mail hardcopy  
Mouse and Rat samples should be diluted and heat inactivated, see reverse.

SAMPLE ID (Per vial Label)	SPECIES	DILUTED? Y/N	HEAT INACTIVATED? Y/N	TEST CATALOG#	CATALOG DESCRIPTION
S11	Rat	N	N	80-219	Rat Level II Complete
S12	↓	↓	↓	↓	Antibody Profile
S13	↓	↓	↓	↓	↓
S14	↓	↓	↓	↓	↓
S15	↓	↓	↓	↓	↓
S16	↓	↓	↓	↓	↓
S17	↓	↓	↓	↓	↓
S18	↓	↓	↓	↓	↓
S19	↓	↓	↓	↓	↓
S20	↓	↓	↓	↓	↓

See Shipping Instructions and Terms and Conditions of Sale on the reverse.  
 Any questions, call Client Services at 301.610.2227 or 800.756.5658 x2227.



**BIORELIANCE**<sup>SM</sup>  
Formerly Microbiological Associates

Study Number FY01-013

BIORELIANCE CORPORATION  
14920 BROSCHART ROAD  
ROCKVILLE, MARYLAND 20850-3349 USA  
PHONE: 301.738.1000 • FAX: 301.738.1036

Our Code MR E324  
Page 1 JK020972

TO: David G. Burt, DVM  
Lovelace Respiratory Research Inst.  
Inhalation Toxicology  
2425 Ridgecrest Drive SE  
Albuquerque, NM 87108

FROM: Kathleen M. Vincent <sup>KV</sup>  
DATE: July 19, 2002  
SPECIMEN: 10 rat sera  
RECEIVED: July 16, 2002

RESULTS: None of the tests were positive.

See attached tables for test results

Sample ID	CARB				ELISA				IFA				
	MPul	PVM	RCV/SDA	Reo	Sendai	LCM	Parvo	RCV/SDA	Sendai	LCM	Parvo	RCV/SDA	Sendai
S11	0.12	0.11	0.03	I	0.00	-	-	0.00	0.00	-	-	-	-
S12	0.33	0.07	0.00	0.03	0.00	-	-	0.02	0.02	-	-	-	-
S13	0.00	0.07	0.00	0.05	0.00	-	-	0.02	0.02	-	-	-	-
S14	0.07	0.09	0.00	0.00	0.00	-	-	0.03	0.03	-	-	-	-
S15	0.06	0.00	0.00	0.00	0.00	-	-	0.00	0.00	-	-	-	-
S16	0.29	0.00	0.00	0.04	0.00	-	-	0.04	0.04	-	-	-	-
S17	0.11	0.01	0.03	0.00	0.00	-	-	0.01	0.01	-	-	-	-
S18	0.34	0.05	0.16	I	0.00	-	-	I	I	-	-	-	-
S19	0.21	0.00	0.02	0.07	0.00	-	-	0.01	0.01	-	-	-	-
S20	0.09	0.06	0.00	0.02	0.00	-	-	0.01	0.01	-	-	-	-

Sample ID	HAI	
	H-1	KRV
S11	-	+
S12	-	-
S13	-	+
S14	-	-
S15	-	+
S16	-	-
S17	-	+
S18	-	-
S19	-	+
S20	-	-

ELISA: Positive value is >= 0.17 OD units  
 CARB only >=0.50 OD units is positive  
 + = positive; - = negative  
 HAI: Numerical value = positive; - = negative  
 I: See IFA column for test result



November 25, 2002

**BioReliance**

Attention: Rodent and Rabbit Laboratory  
9630 Medical Center Drive  
Rockville, MD. 20850-3300

Dear Sir/Ms.:

Please determine antibody titers 80-219 on the enclosed 10 rat serum samples.  
The samples are identified as follows:  
S011, S012, S013, S014, S015, S016, S017, S018, S019, S020

Samples were NOT heat inactivated.

Please bill on receipt of samples. A purchase order number will be mailed under a separate cover.

Sincerely,

A handwritten signature in black ink that reads 'Vicki A. White'.

Vicki A. White  
Animal Research Coordinator  
505-348-9501  
FASX: 505-348-4980

### SAMPLE SUBMISSION FORM RODENT & RABBIT LABORATORY

Study Number FY01-013

CUSTOMER NAME Joan McCully  
 COMPANY NAME Lovelace Hosp. Res. Inst.  
 ADDRESS 2425 Ridgecrest Dr. S.E.  
ALBUQUERQUE, N.M. 87108  
 PHONE (505) 834-9501  
 FAX # (505) 348-4980

P.O. NUMBER \_\_\_\_\_  
 BILLING ADDRESS Same  
Accounts Payable Contact Name

ADDRESS \_\_\_\_\_  
 CHECK IF PAYING BY CREDIT CARD  
 PHONE \_\_\_\_\_ FAX \_\_\_\_\_

Authorized Signature \_\_\_\_\_  
 Lab Contact Name (and phone if different than above) \_\_\_\_\_  
 DATE SHIPPED 11-25-02  
 KNOWN/SUSPECTED HUMAN PATHOGEN? No # OF SAMPLES 10  
 Special Instructions \_\_\_\_\_

Mouse and Rat samples should be diluted and heat inactivated, see reverse.

SAMPLE ID (Per vial Label)	SPECIES	DILUTED? Y/N	HEAT INACTIVATED? Y/N	TEST CATALOG#	CATALOG DESCRIPTION
S011	Rat	No	N	80-219	Rat level II Complete
S012	↓	↓	↓	↓	↓
S013	↓	↓	↓	↓	↓
S014	↓	↓	↓	↓	↓
S015	↓	↓	↓	↓	↓
S016	↓	↓	↓	↓	↓
S017	↓	↓	↓	↓	↓
S018	↓	↓	↓	↓	↓
S019	↓	↓	↓	↓	↓
S020	↓	↓	↓	↓	↓

See Shipping Instructions and Terms and Conditions of Sale on the reverse.  
 Any questions, call Client Services at 301.610.2227 or 800.756.5658 x2227.

PR1104U0101





**BIORELIANCE**<sup>SM</sup>  
Formerly Microbiological Associates

Study Number FY01-013

BIORELIANCE CORPORATION  
14920 BROSCHART ROAD  
ROCKVILLE, MARYLAND 20850-3349 USA  
PHONE: 301.738.1000 • FAX: 301.738.1036

Our Code MR F714A  
Page 1 JK030012

TO: Joan McCully  
Lovelace Respiratory Research Inst.  
2425 Ridgecrest Drive S. E.

Albuquerque, NM 87108

FROM: Kathleen M. Vincent <sup>KV</sup>  
DATE: December 3, 2002  
SPECIMEN: 10 rat sera  
RECEIVED: November 26, 2002

RESULTS: None of the tests were positive.

See attached tables for test results

Exact copy of original document  
By: J. Bern Date: 9-25-03

Sample ID	ELISA					IFA					
	CARB	MPul	PVM	RCV/SDA	Reo	Sendai	CARB	LCM	IFA	Parvo	Sendai
S011	0.31	0.02	0.00	0.01	0.05	0.04	-	-	-	-	-
S012	I	0.07	0.00	0.14	0.12	I	-	-	-	-	-
S013	0.02	0.00	0.00	0.03	0.06	0.07	-	-	-	-	-
S014	I	0.01	0.03	0.00	0.06	0.10	-	-	-	-	-
S015	0.00	0.00	0.01	0.06	0.04	0.06	-	-	-	-	-
S016	0.16	0.00	0.01	0.01	0.06	0.04	-	-	-	-	-
S017	0.07	0.01	0.00	0.00	0.04	0.08	-	-	-	-	-
S018	0.00	0.00	0.00	0.00	0.05	0.11	-	-	-	-	-
S019	0.11	0.07	0.00	0.10	0.11	0.13	-	-	-	-	-
S020	0.09	0.05	0.00	0.00	0.03	0.07	-	-	-	-	-

Sample ID	HAI	
	H-1	KRV
S011	-	-
S012	-	-
S013	-	-
S014	-	-
S015	-	-
S016	-	-
S017	-	-
S018	-	-
S019	-	-
S020	-	-

Exact copy of original document  
 By JTBenz Date: 9-25-03

ELISA: Positive value is >= 0.17 OD units  
 CARB only >=0.50 OD units is positive  
 + = positive; - = negative  
 HAI: Numerical value = positive; - = negative  
 I: See IFA column for test result

W/10103



June 9, 2003

BioReliance  
ATT: Rodent and Rabbit Laboratory  
9630 Medical Center Drive  
Rockville, MD 20850-3300

Dear Sir or Madam:

Please determine antibody titers, 80-219 on the enclosed four (4) rat sera.  
See attached Rodent and Rabbit Laboratory Order form.

Samples have not been diluted or heat inactivated.

Please bill on receipt of samples. Purchase order JK 030947 will be mailed under a separate cover.

Sincerely,

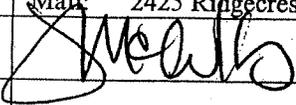
A handwritten signature in cursive script, appearing to read 'Rodger Van Andel', is written over a faint, illegible typed name.

Dr. Rodger Van Andel  
Attending Veterinarian

Office: 505-348-9404  
Fax: 505-348-4980

**Chain-of-Custody**

**Notice of Shipment:**

Study Number If None, N/A	FY01-013
Originator Name/Title Organization/Address	Name: <u>Dr. Roger Van Andel</u>  Title: <u>Director Animal Care Operations</u>  Lovelace Respiratory Research Institute – Inhalation Toxicology Laboratory Courier: Bldg 9217, Area Y, KAFB East, Albuquerque, NM 87115 Mail: 2425 Ridgcrest SE, Albuquerque, NM 87108
Originator Signature	
Recipient Name Courier Address	Bio Reliance ATT: Rodent & Rabbit Lab 9630 Medical Center Drive Rockville, MD 20850-3300
Date of Shipment and Fax of Custody Form to Recipient	Date: <u>6/10/03</u> Recipient Fax Number: _____
Method of Transport and Tracking Number, if Applicable	
Description/Type of Samples/Materials Note: Inventory is Attached	RAT Sera
Special Instructions If None, N/A	NA

**Acknowledgement of Receipt:**

Received By Date and Signature	
Condition of Samples or Materials Upon Receipt	

**Recipient**

- Note the condition of samples/materials
- Sign and date "Received By"
- Retain a copy of this form with the samples/materials
- Return the original of the completed form to:

Dr. Roger Van Andel, DMV  
Lovelace Respiratory Research Institute 2425 Ridgcrest Drive S.E. Albuquerque NM 87108

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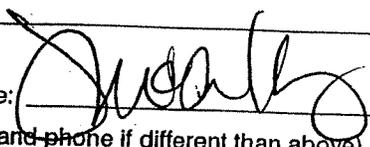
Study Number FY01-013

# RODENT & RABBIT LABORATORY

INVESTIGATOR/ CONTACT: Dr. Roger Van Andel P.O./ REFERENCE NO. JK030947  
 COMPANY NAME Lovelace Respiratory Research Inst ACCTS. PAYABLE CONTACT: Jeanne Klein  
 DIVISION/DEPT: Animal Care ADDRESS: Same  
 ADDRESS: 2425 Ridgecrest dr. SE,  
Albuquerque, NM 87108  
 PHONE: (505) 348-9546  
 FAX: (505) 348-4980  
 EMAIL: \_\_\_\_\_

CHECK IF PAYING BY CREDIT CARD

Cardholder's Signature: \_\_\_\_\_  
 PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

Authorized Signature: 

Lab Contact Name (and phone if different than above) Joan McCully 505 348 9546

DATE SHIPPED 6/10/03 # OF SAMPLES 4 rat sera

KNOWN/SUSPECTED HUMAN PATHOGEN? NO

Special Instructions NA-

Mouse and Rat samples should be diluted and heat inactivated, see reverse.

SAMPLE ID (Per vial Label)	SPECIES	DILUTED ? Y/N	HEAT INACTIVATED? Y/N	TEST CATALOG#	CATALOG DESCRIPTION
6831-511	Rat	N	N	80-219	Rat Anti-body
6831-513	↓	↓	↓	↓	Level II
6832-518	↓	↓	↓	↓	↓
6832-519	↓	↓	↓	↓	↓

See Shipping Instructions and Terms and Conditions of Sale on the reverse.  
 Any questions, call Client Services at 301.610.2227 or 800.804.3586.



**BIORELIANCE**<sup>SM</sup>

Study Number FY01-013

BIORELIANCE CORPORATION  
14920 BROSCART ROAD  
ROCKVILLE, MARYLAND 20850-3349 USA  
PHONE: 301.738.1000 • FAX: 301.738.1036

Our Code MR H517  
Page 1 JK030947

TO: Dr. Roger Van Andel  
Lovelace Respiratory Research Inst.  
2425 Ridgcrest Drive S.E.  
Albuquerque, NM 87108

FROM: Kathleen M. Vincent <sup>by</sup>  
DATE: June 18, 2003  
SPECIMEN: 4 rat sera  
RECEIVED: June 11, 2003

RESULTS: None of the tests were positive.

Sample ID	----- ELISA -----					
	CARB	MPul	PVM	RCV/SDA	Reo	Sendai
6831-511	0.00	0.00	0.00	0.02	0.09	0.05
6831-513	0.00	0.02	0.00	0.00	0.11	0.06
6832-518 *	NS	0.00	0.00	0.01	NS	0.06
6832-519	0.04	0.00	0.00	0.00	0.07	0.13

Sample ID	---- IFA ----		---- HAI ----	
	LCM	Parvo	H-1	KRV
6831-511	-	-	-	-
6831-513	-	-	-	-
6832-518 *	NS	-	NS	-
6832-519	-	-	-	-

Note: \* Low serum volume received; priority requested  
 ELISA: Positive value is >= 0.17 OD units  
 CARB only >=0.50 OD units is positive  
 IFA: + = positive; - = negative  
 HAI: Numerical value = positive; - = negative  
 NS: INSufficient sample to complete testing

*Note: The animal number designation S was mistaken for a 5 by BioReliance. Therefore animal numbers are S11, S13, S18 and S19.*

*J Benson 7/8/06*

APPENDIX D  
RESULTS OF FEED AND WATER ANALYSES

### TEKLAD

DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET

LOT NUMBER: 8728C-121301MA

DATE OF MANUFACTURE: 12-13-01

REPORT DATE: 01-10-02

### FEED CONTAMINANT SCREEN

ANALYSIS	RESULT	UNITS	ESTABLISHED MAXIMUM CONCENTRATION
<b>HEAVY METALS:</b>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.19	ppm	0.50
<b>AFLATOXIN:</b>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<b>CHLORINATED HYDROCARBONS:</b>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<b>ORGANOPHOSPHATES:</b>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfaton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

*Charles E. Benton*  
Charles E. Benton, Ph.D.

Nutritionist

01-14-02  
Date

**TEKLAD**

DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET

LOT NUMBER: 8728C-020402MB

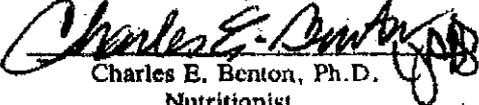
DATE OF MANUFACTURE: 02-04-02

REPORT DATE: 02-20-02

**FEED CONTAMINANT SCREEN**

<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ESTABLISHED MAXIMUM CONCENTRATION</u>
<u>HEAVY METALS:</u>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.30	ppm	0.50
<u>AFLATOXIN:</u>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<u>CHLORINATED HYDROCARBONS:</u>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<u>ORGANOPHOSPHATES:</u>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfaton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

  
Charles E. Benton, Ph.D.  
Nutritionist

02-21-02  
Date

**Harlan**

## LABORATORY DIET CERTIFICATION REPORT

TEKLAD DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET

LOT NUMBER: 8728C-020402MA

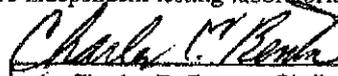
DATE OF MANUFACTURE: 02-04-02

REPORT DATE: 02-20-02

## FEED CONTAMINANT SCREEN

<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ESTABLISHED MAXIMUM CONCENTRATION</u>
<u>HEAVY METALS:</u>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.30	ppm	0.50
<u>AFLATOXIN:</u>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<u>CHLORINATED HYDROCARBONS:</u>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<u>ORGANOPHOSPHATES:</u>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfaton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

  
Charles E. Benton, Ph.D.  
Nutritionist

03-05-0  
Date

## LABORATORY DIET CERTIFICATION REPORT

DIET NAME: 2018SC, TEKLAB CERTIFIED GLOBAL 18% PROTEIN RODENT  
DIET (STERILIZABLE)

LOT NUMBER: 2018SC-022102MA

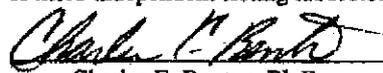
DATE OF MANUFACTURE: 02-21-02

REPORT DATE: 03-14-02

## FEED CONTAMINANT SCREEN

<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ESTABLISHED MAXIMUM CONCENTRATION</u>
<u>HEAVY METALS:</u>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.22	ppm	0.50
<u>AFLATOXIN:</u>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<u>CHLORINATED HYDROCARBONS:</u>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<u>ORGANOPHOSPHATES:</u>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfaton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

Charles E. Benton, Ph.D.  
Nutritionist03-15-02  
Date

Study Number FY01-013

**Harlan**

## LABORATORY DIET CERTIFICATION REPORT

**TEKIAD**

DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET

LOT NUMBER: 8728C-020402MA

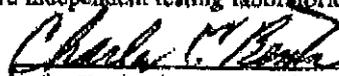
DATE OF MANUFACTURE: 02-04-02

REPORT DATE: 02-20-02

## FEED CONTAMINANT SCREEN

ANALYSIS	RESULT	UNITS	ESTABLISHED MAXIMUM CONCENTRATION
<b>HEAVY METALS:</b>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.30	ppm	0.50
<b>AFLATOXIN:</b>			
Aflatoxin B1, B2, G1, G2	<5	ppb	5.00
<b>CHLORINATED HYDROCARBONS:</b>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<b>ORGANOPHOSPHATES:</b>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfoton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

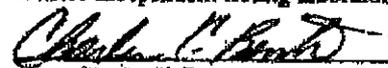
  
Charles E. Benton, Ph.D.  
Nutritionist

03-05-02  
Date

**Harlan**  
**TEKLAD****LABORATORY DIET CERTIFICATION REPORT****DIET NAME: 2018SC, TEKLAD CERTIFIED GLOBAL 18% PROTEIN RODENT  
DIET (STERILIZABLE)****LOT NUMBER: 2018SC-022102MA****DATE OF MANUFACTURE: 02-21-02****REPORT DATE: 03-14-02****FEED CONTAMINANT SCREEN**

<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ESTABLISHED MAXIMUM CONCENTRATION</u>
<u>HEAVY METALS:</u>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.22	ppm	0.50
<u>AFLATOXIN:</u>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<u>CHLORINATED HYDROCARBONS:</u>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<u>ORGANOPHOSPHATES:</u>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfoton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

  
Charles E. Benton, Ph.D.  
Nutritionist

03-15-02  
Date

**Harlan**  
**TEKLAD****LABORATORY DIET CERTIFICATION REPORT**

DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET

LOT NUMBER: 8728C-031102MA

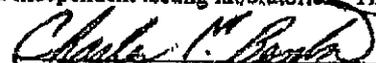
DATE OF MANUFACTURE: 03-11-02

REPORT DATE: 03-27-02

**FEED CONTAMINANT SCREEN**

<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ESTABLISHED MAXIMUM CONCENTRATION</u>
<u>HEAVY METALS:</u>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.21	ppm	0.50
<u>AFLATOXIN:</u>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<u>CHLORINATED HYDROCARBONS:</u>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCE's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<u>ORGANOPHOSPHATES:</u>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfaton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

  
Charles E. Benton, Ph.D.  
Nutritionist

03-28-02  
Date

**LABORATORY DIET CERTIFICATION REPORT**

DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET  
LOT NUMBER: 8728C-032702MB

DATE OF MANUFACTURE: 03-27-02

REPORT DATE: 04-11-02

**FEED CONTAMINANT SCREEN**

ANALYSIS	RESULT	UNITS	ESTABLISHED MAXIMUM CONCENTRATION
<b>HEAVY METALS:</b>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.28	ppm	0.50
<b>AFLATOXIN:</b>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<b>CHLORINATED HYDROCARBONS:</b>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.05
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.03
Hexachlorobenzene	<0.01	ppm	0.02
Mirex	<0.01	ppm	0.50
Methoxychlor	<0.01	ppm	
<b>ORGANOPHOSPHATES:</b>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfoton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

*Charles E. Benton*  
Charles E. Benton, Ph.D.  
Nutritionist  
Date: 04-11-02

*[Handwritten signature]*

**Larlan****LABORATORY DIET CERTIFICATION REPORT****TEKIAD**

DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET

LOT NUMBER: 8728C-060502MA

DATE OF MANUFACTURE: 06-05-02

REPORT DATE: 06-23-02

**FEED CONTAMINANT SCREEN**

<b>ANALYSIS</b>	<b>RESULT</b>	<b>UNITS</b>	<b>ESTABLISHED MAXIMUM CONCENTRATION</b>
<b>HEAVY METALS:</b>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.22	ppm	0.50
<b>AFLATOXIN:</b>			
Aflatoxin B1, B2, G1, G2	<5	ppb	5.00
<b>CHLORINATED HYDROCARBONS:</b>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<b>ORGANOPHOSPHATES:</b>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfoton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

*Charles E. Benton*  
Charles E. Benton, Ph.D.  
Nutritionist

06-24-02  
Date

*BP*



LABORATORY DIET CERTIFICATION REPORT  
DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET

LOT NUMBER: 8728C - 031103MA

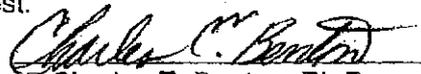
DATE OF MANUFACTURE: 03-11-03

REPORT DATE: 03-29-03

## FEED CONTAMINANT SCREEN

<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ESTABLISHED MAXIMUM CONCENTRATION</u>
<u>HEAVY METALS:</u>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.22	ppm	0.50
<u>AFLATOXIN:</u>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<u>CHLORINATED HYDROCARBONS:</u>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<u>ORGANOPHOSPHATES:</u>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfaton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories.  
The actual laboratory test results are available upon request.

  
Charles E. Benton, Ph.D.  
Nutritionist

04-01-03  
Date

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## LABORATORY DIET CERTIFICATION REPORT

DIET NAME: 8728C, TEKLAD CERTIFIED RODENT DIET

LOT NUMBER: 8728C - 030303MA

DATE OF MANUFACTURE: 03-03-03

REPORT DATE: 03-25-03

## FEED CONTAMINANT SCREEN

<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ESTABLISHED MAXIMUM CONCENTRATION</u>
<u>HEAVY METALS:</u>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.23	ppm	0.50
<u>AFLATOXIN:</u>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<u>CHLORINATED HYDROCARBONS:</u>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<u>ORGANOPHOSPHATES:</u>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfaton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50



**TEKIAD**

**LABORATORY DIET CERTIFICATION REPORT**

DIET NAME: 8728CM, TEKLAD CERTIFIED RODENT DIET, MEAL

LOT NUMBER: 8728CM-011603MA

DATE OF MANUFACTURE: 01-16-03

REPORT DATE: 02-24-03

**FEED CONTAMINANT SCREEN**

<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ESTABLISHED MAXIMUM CONCENTRATION</u>
<u>HEAVY METALS:</u>			
Arsenic	<0.10	ppm	1.00
Cadmium	<0.10	ppm	0.50
Lead	<0.20	ppm	1.50
Mercury	<0.05	ppm	0.20
Selenium	0.42	ppm	0.50
<u>AFLATOXIN:</u>			
Aflatoxin B1,B2,G1,G2	<5	ppb	5.00
<u>CHLORINATED HYDROCARBONS:</u>			
Aldrin	<0.01	ppm	0.03
Lindane	<0.01	ppm	0.05
Chlordane	<0.01	ppm	0.05
DDT and related substances	<0.01	ppm	0.15
Dieldrin	<0.01	ppm	0.03
Endrin	<0.01	ppm	0.03
Heptachlor	<0.01	ppm	0.03
Heptachlor Epoxide	<0.01	ppm	0.03
Toxaphene	<0.10	ppm	0.15
PCB's	<0.10	ppm	0.15
a-BHC	<0.01	ppm	0.05
b-BHC	<0.01	ppm	0.05
d-BHC	<0.01	ppm	0.05
Hexachlorobenzene	<0.01	ppm	0.03
Mirex	<0.01	ppm	0.02
Methoxychlor	<0.01	ppm	0.50
<u>ORGANOPHOSPHATES:</u>			
Thimet	<0.10	ppm	0.50
Diazinon	<0.10	ppm	0.50
Disulfaton	<0.10	ppm	0.50
Methyl Parathion	<0.10	ppm	0.50
Malathion	<0.10	ppm	0.50
Parathion	<0.10	ppm	0.50
Thiodan	<0.10	ppm	0.50
Ethion	<0.10	ppm	0.50
Trithion	<0.10	ppm	0.50

The above data is a consolidation of results obtained from one or more independent testing laboratories. The actual laboratory test results are available upon request.

*Charles E. Benton*

Charles E. Benton, Ph.D.  
Nutritionist

02-24-03  
Date

D-13



**KRAMER & ASSOCIATES, INC.**  
engineers / environmental consultants

4501 bogan northeast, suite a-1  
albuquerque, new mexico 87109

(505) 881-0243  
FAX (505) 881-7738

March 19, 2003

Dr. Roger Van Andel  
Lovelace Respiratory Research Institute  
P.O. Box 5890  
Albuquerque, NM 87185

### Water Analyses Laboratory Report

**Samples Collected: Rooms 233, 408, and 541    Date Sampled: 2/13/03; Analyzed: 2/14/03 – 2/28/03**

<u>Parameter</u>	<u>Room 233</u> (Mg/L)	<u>Room 408</u> (Mg/L)	<u>Room 541</u> (Mg/L)	<u>Method*</u>
<b><u>Metals:</u></b>				
Aluminum	0.02	0.02	0.02	3500 Al D
Antimony	<0.005	<0.005	<0.005	3113 A
Arsenic	<0.01	<0.01	<0.01	3500-As B
Barium	<0.5	<0.5	<0.5	3111 B
Beryllium	<0.01	<0.01	<0.01	3113 A
Boron	<0.1	<0.1	<0.1	4500 B B
Cadmium	<0.02	<0.02	<0.02	3111 B
Calcium	47.0	46.2	46.1	3500 Ca D
Chromium	<0.05	<0.05	<0.05	3111 B
Copper	<0.02	<0.02	<0.02	3111 B
Iron	0.06	0.07	0.06	3111 B
Lead	<0.01	<0.01	<0.01	3113 A
Magnesium	4.0	4.0	4.0	3500 Mg B
Manganese	<0.05	<0.05	<0.05	3111 B
Mercury	<0.002	<0.002	<0.002	3112-B
Sodium	25.0	24.1	24.5	3111 B
Potassium	1.52	1.55	1.60	3111 B
Selenium	<0.01	<0.01	<0.01	3113 A
Strontium	0.32	0.32	0.29	3113 A
Thallium	<0.002	<0.002	<0.002	3113 A
Zinc	<0.03	<0.03	<0.03	3111 B

**Page 2: Lovelace Respiratory Research Institute Water Analyses Report 3/05/03 (cont'd)**

<b><u>Parameter</u></b>	<b><u>Room 233</u></b> (Mg/L)	<b><u>Room 408</u></b> (Mg/L)	<b><u>Room 541</u></b> (Mg/L)	<b><u>Method</u></b>
<b><u>Anions:</u></b>				
Nitrate	0.2	0.5	0.5	4500-NO <sub>3</sub> <sup>-</sup>
Nitrite	0.006	0.005	0.009	4500-, -NO <sub>2</sub> <sup>-</sup>
Phosphorous	0.1	0.2	0.2	4500 P E
Fluoride	0.57	0.49	0.48	4500 D
<b><u>Microbiological:</u></b>				
Standard Plate Count (Colonies per 100 ml)	< 1	< 1	80	9215 D
	<b><u>(micrograms/L)</u></b>	<b><u>(micrograms/L)</u></b>	<b><u>(micrograms/L)</u></b>	<b><u>EPA Method</u></b>
<b><u>Organics:</u></b>				
Total Trihalomethanes	<0.1	<0.1	<0.1	601
<b><u>Pesticides:</u></b>				
Diazinon	not detected	not detected	not detected	625
Malathion	not detected	not detected	not detected	625
Methyl Parathion	not detected	not detected	not detected	625
Parathion	not detected	not detected	not detected	625
Thimet	not detected	not detected	not detected	625
Trithion	not detected	not detected	not detected	625
Thiodan	not detected	not detected	not detected	625
Aldrin	<1.9	<1.9	<1.9	625
Lindane	not detected	not detected	not detected	625
Heptachlor epoxide	<2.2	<2.2	<2.2	625
Dieldrin	<2.5	<2.5	<2.5	625
4,4'-DDE	<5.6	<5.6	<5.6	625
Endrin	not detected	not detected	not detected	625
4,4'-DDD	<2.8	<2.8	<2.8	625
4,4'-DDT	<4.7	<4.7	<4.7	625
Chlordane	not detected	not detected	not detected	625

**Page 3: Lovelace Respiratory Research Institute Water Analyses Report 3/05/03 (cont'd)**

	<b><u>Room 233</u></b>	<b><u>Room 408</u></b>	<b><u>Room 541</u></b>	
	<b><u>(micrograms/L)</u></b>	<b><u>(micrograms/L)</u></b>	<b><u>(micrograms/liter)</u></b>	<b><u>EPA Method</u></b>
<b><u>PCB's:</u></b>				
PCB 1016	not detected	not detected	not detected	625
PCB 1221	<30	<30	<30	625
PCB 1232	not detected	not detected	not detected	625
PCB 1242	not detected	not detected	not detected	625
PCB 1248	not detected	not detected	not detected	625
PCB 1254	<36	<36	<36	625
PCB 1260	not detected	not detected	not detected	625

\*Standard Methods for the Examination of Water and Wastewater, 19 Ed. 1995.

Kramer & Associates, Inc.  
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Study Number FY01-013

**MICROBIOLOGICAL  
WATER ANALYSIS REPORT**

Laboratory No. 9414

Water Supply Name: Lovelace Respiratory Res. Inst. Type Sample  
Address: 2425 Ridgcrest DR NE  
Albuquerque NM 87112<sup>NVA</sup> [ ] Routine  
Phone Number: 505 348 9402 87108 [x] Repeat  
System Type: [ ] Community; [ ] Non-community; [x] Private  
WSS No.: \_\_\_\_\_

Sample Collection

Date/Time: 4/3/03 11:45 AM  
Sample Taken at: Room 541  
Sampled by: Roger Van Andel  
Sample Preservation: \_\_\_\_\_  
Chlorine Residual: [ ] Yes [ ] No

Comments:

Mail Results To: Roger Van Andel

Sample Analysis

Date/Time Received: 4/3/03 1600  
Date/Time Analysed: 4/3/03 1610  
Method: ~~MMO-MUG~~ Analyst: OK

MF

TEST RESULTS:

Total Coliform: Present [ ] Absent [ ]  
E. Coli: Present [ ] Absent [ ]

Total count = 1 / 100ml

*Retest of Room 541 confirms that the previous sample was likely contaminated. Minimal bacterial growth was detected in the retest.*

*4/15/03*

*Roger Van Andel*



KRAMER & ASSOCIATES, INC.  
engineers / environmental consultants

4501 bogan northeast, suite a-1  
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FAX (505) 881-7738

January 31, 2002

Dr. David Burt  
Lovelace Respiratory Research Institute  
P.O. Box 5890  
Albuquerque, NM 87185

## Water Analyses Laboratory Report

Samples Collected: Rooms 233 and 541    Date Sampled: 12/17/01; Analysed: 12/20/01 – 1/28/02

<u>Parameter</u>	<u>Room 233</u> (Mg/L)	<u>Room 541</u> (Mg/L)	<u>Method</u>
<b><u>Metals:</u></b>			
Aluminum	0.01	0.02	3500 Al D
Antimony	<0.005	<0.005	3113 A
Arsenic	<0.01	<0.01	3500-As B
Barium	<0.5	<0.5	3111 B
Beryllium	<0.01	<0.01	3113 A
Boron	<0.1	<0.1	4500 B B
Cadmium	<0.05	<0.05	3111 B
Calcium	41.9	41.1	3500 Ca D
Chromium	<0.05	<0.05	3111 B
Copper	<0.05	<0.05	3111 B
Iron	0.054	0.060	3111 B
Lead	<0.01	<0.01	3113 A
Magnesium	20.6	20.8	3500 Mg B
Manganese	<0.05	<0.05	3111 B
Mercury	<0.002	<0.002	3112-B
Sodium	25.4	25.4	3111 B
Potassium	4.34	4.33	3111 B
Selenium	<0.01	<0.01	3113 A
Strontium	0.10	0.29	3113 A
Thallium	<0.002	<0.002	3113 A
Zinc	<0.03	<0.03	3111 B

Page 2: Lovelace Respiratory Research Institute Water Analyses Report 1/31/02 (cont'd)

<u>Parameter</u>	<u>Room 233</u> (Mg/L)	<u>Room 541</u> (Mg/L)	<u>Method</u>
<b><u>Anions:</u></b>			
Nitrate	1.4	1.4	4500-NO <sub>3</sub> -
Nitrite	0.010	0.009	4500-, -NO <sub>2</sub> -
Phosphorous	0.06	0.07	4500 P E
Fluoride	0.24	0.25	4500 D
<b><u>Microbiological:</u></b>			
Standard Plate Count	< 1 Col/100 ml.	<1 Col/100ml	

	<u>(micrograms/liter)</u>	<u>(micrograms/liter)</u>	<u>EPA Method</u>
<b><u>Organics:</u></b>			
Total Trihalomethanes	<0.1	<0.1	601
<b><u>Pesticides:</u></b>			
Diazinon	not detected	not detected	625
Malathion	not detected	not detected	625
Methyl Parathion	not detected	not detected	625
Parathion	not detected	not detected	625
Thirnet	not detected	not detected	625
Trithion	not detected	not detected	625
Thiodan	not detected	not detected	625
Aldrin	<1.9	<1.9	625
Lindane	not detected	not detected	625
Heptachlor epoxide	<2.2	<2.2	625
Dieldrin	<2.5	<2.5	625
4,4'-DDE	<5.6	<5.6	625
Endrin	not detected	not detected	625
4,4'-DDD	<2.8	<2.8	625
4,4'-DDT	<1.7	<1.7	625
Chlordane	not detected	not detected	625

Page 3: Lovelace Respiratory Research Institute Water Analyses Report 1/31/02 (cont'd)

	<u>Room 233</u>	<u>Room 541</u>	<u>EPA Method</u>
	<u>(micrograms/liter)</u>	<u>(micrograms/liter)</u>	
<u>PCB's:</u>			
PCB 1016	not detected	not detected	625
PCB 1221	<30	<30	625
PCB 1232	not detected	not detected	625
PCB 1242	not detected	not detected	625
PCB 1248	not detected	not detected	625
PCB 1254	<36	<36	625
PCB 1260	not detected	not detected	625

APPENDIX E

SUMMARIES OF GMVC ANALYSES IN EXPOSURE CHAMBERS AND  
EXPOSURE ROOM AND AEROSOL SCIENTIST'S REPORT

- E-1 Three Day Stability Assessment and Nominal GMVC Usage
- E-2 Pre-Study Homogeneity Study
- E-3 T90 Determination
- E-4 Absence of Aerosol Confirmation
- E-5 GMVC Daily Exposure Concentrations and Nominal Usage
- E-6 Summary of GMVC Room Air Sampling Results
- E-7 Aerosol Scientist's Report

E-1 Three Day Stability Assessment and Nominal GMVC Usage

211(b) CHRONIC CARCINOGENICITY STUDY

Reviewed (QC'd) by: \_\_\_\_\_  
*DPS/24/01*

**Chamber Concentration Summary**

Gasoline MTBE Vapor Condensate

Exposure Log

May 17, 2001

Operator: Mitchell Irvin

Initiated on 5/17/01 at 08:03

Start Exposures	End Exposures	Exposure Time
08:03	14:03	6.00

**Sample Summary**

Chamber-Samp#	Date	Start Sample	End Sample	Samp Time (min)	Avg. (g/m <sup>3</sup> )	STDEV	# Values
6-1	05/17/2001	08:03	10:03	120	2.04	0.22	2143
6-2	05/17/2001	10:10	12:03	113	2.10	0.22	2022
6-3	05/17/2001	12:03	14:03	120	2.03	0.20	2135
7-1a	05/17/2001	08:03	10:03	120	7.68	1.05	2143
7-2a	05/17/2001	10:10	12:03	113	8.07	0.32	2023
7-3a	05/17/2001	12:03	14:03	120	7.83	0.45	2135
7-1b	05/17/2001	08:03	10:03	120	9.24		
7-2b	05/17/2001	10:10	12:03	113	9.70		
7-3b	05/17/2001	12:03	14:03	120	9.41		
8-1	05/17/2001	08:03	10:03	120	18.52	1.58	2144
8-2	05/17/2001	10:10	12:03	113	18.98	0.85	2022
8-3	05/17/2001	12:03	14:03	120	19.03	1.14	2135

**Concentration Summary**

Chamber	Target Concentration (g/m <sup>3</sup> )	AVG. Conc. (g/m <sup>3</sup> )	% Target	STDEV	% CV
6	2	2.06	103	0.04	1.84
7a	10	7.86	79	0.20	2.50
7b	10	9.45	94	0.23	2.47
8	20	18.84	94	0.28	1.49

**Comments**

- a) Correlation for miran voltage vs concentration based on volume of injection. <sup>*injection*</sup> Other mirans based on mass of injection
- b) Corrected values using <sup>*mass @ 5/23/01*</sup> calibration curves. <sup>*DPS/23/01*</sup> Use these values for stability information. <sup>*DPS/23/01*</sup>



Reviewed (QC'd) by: \_\_\_\_\_  
*(initials)*

**Chamber Concentration Summary**

Gasoline MTBE Vapor Condensate

Exposure Log

May 18, 2001

Operator: Mitchell Irvin

Initiated on 5/18/01 at 08:00

Start Exposures	End Exposures	Exposure Time
08:00	14:10	6.17

**Sample Summary**

Chamber-Samp#	Date	Start Sample	End Sample	Samp Time (min)	Avg. (g/m <sup>3</sup> )	STDEV	# Values
6-1	05/18/2001	08:00	09:00	60	2.12	0.38	1071
6-2	05/18/2001	09:00	11:00	120	1.90	0.09	2141
6-3	05/18/2001	11:00	12:00	60	1.91	0.33	1075
6-4	05/18/2001	12:06	14:10	124	2.00	0.26	2211
7-1	05/18/2001	08:00	09:00	60	9.24	1.11	1071
7-2	05/18/2001	09:00	11:00	120	9.28	0.93	2141
7-3	05/18/2001	12:06	14:10	124	9.51	0.45	2211
8-1	05/18/2001	08:00	09:00	60	21.71	0.87	1071
8-2	05/18/2001	10:00	11:00	60	19.50	0.54	1077
8-3	05/18/2001	11:00	12:00	60	18.83	0.56	1076
8-4	05/18/2001	12:06	14:10	124	17.28	6.88	2210

**Concentration Summary**

Chamber	Target Concentration (g/m <sup>3</sup> )	AVG. Conc. (g/m <sup>3</sup> )	% Target	STDEV	% CV
6	2	1.97	99	0.10	5.18
7	10	9.37	94	0.15	1.56
8	20	18.90	94	1.14	6.03

**Comments**

Test run was operated longer than 6 hours in order to pull APS samples from Chamber 5 & 8.

QP 5/24/01

MT  
5/23/01

**Nominal Concentration (Mass Balance)**

Exposure  
 Operator: Mitchell Irvin

May 18, 2001

**Chamber Exhaust Flows**

Date	Time	CBR5 (Control)	CBR6 (2g/m3)	CBR7 (10g/m3)	CBR8 (20g/m3)
05/18/2001	08:00	400	401	393	422
05/18/2001	08:30	399	403	395	429
05/18/2001	09:00	399	403	394	429
05/18/2001	09:30	399	402	394	428
05/18/2001	10:00	398	402	394	428
05/18/2001	10:30	399	402	395	429
05/18/2001	11:00	399	403	393	428
05/18/2001	11:30	399	402	393	428
05/18/2001	12:00	399	403	394	428
05/18/2001	12:30	399	402	393	428
05/18/2001	13:00	401	405	396	431
05/18/2001	13:30	415	418	409	445

<b>Average*</b>	<b>404</b>	<b>395</b>	<b>429</b>
<b>CBR Conc. (g/m<sup>3</sup>)</b>	1.97	9.37	18.90
<b>Gen. Runtime (min)</b>	385	385	385
<b>Calculated VC Use (g)*</b>	306	1426	3125

**Mass Balance**

Anticipated usage (g)	4857
Actual Usage (g)	4700
Actual / Anticipated (%)	97

**Comments:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MT 9/24/03

\* 
$$\text{Calculated VC Use (g)} = \frac{\text{CBR Conc} \left( \frac{\text{g}}{\text{l}} \right) \text{Gen Runtime (min)} \text{Exhaust Flow (lpm)}}{1000 \left( \frac{\text{l}}{\text{m}^3} \right)}$$

Reviewed (QC'd) by: \_\_\_\_\_

*OP 5/24/01*

**Chamber Concentration Summary**

Gasoline MTBE Vapor Condensate

Exposure Log

May 19, 2001

Operator: Mitchell Irvin

Initiated on 5/19/01 at 06:21

Start	End	Exposure
Exposures	Exposures	Time
06:21	12:21	6.01

*WIP 5/23/01*

**Sample Summary**

Chamber-Samp#	Date	Start Sample	End Sample	Samp Time (min)	Avg. (g/m <sup>3</sup> )	STDEV	# Values
6-1	05/19/2001	06:21	07:21	61	1.99	0.08	1078
6-2	05/19/2001	08:28	10:21	113	1.89	0.07	2006
6-3	05/19/2001	10:21	12:21	120	1.94	0.07	2140
7-1	05/19/2001	06:21	08:21	120	9.44	0.37	2135
7-2	05/19/2001	08:28	10:21	113	9.05	0.17	2006
7-3	05/19/2001	10:21	12:21	120	9.59	0.68	2140
8-1	05/19/2001	06:21	08:21	120	19.88	0.73	2135
8-2	05/19/2001	08:28	10:21	113	19.15	0.18	2006
8-3	05/19/2001	10:21	12:01	100	19.49	0.31	1781
Room	05/19/2001	12:07	12:15	8	0.02	0.06	142
Gen bx	05/19/2001	12:15	12:21	6	-0.02	0.04	112

**Concentration Summary**

Chamber	Target Concentration (g/m <sup>3</sup> )	AVG. Conc. (g/m <sup>3</sup> )	% Target	STDEV	% CV
6	2	1.93	97	0.05	2.59
7	10	9.37	94	0.28	2.98
8	20	19.52	98	0.37	1.87

**Comments**

Gen bx: Sample taken using MIR8 inside the vapor generation box near the vaporizers.

Room: Sample tank using MIR8 in just outside the generator box in the exposure room.

Reviewed (QC'd) by: DP 5/23/01

**Nominal Concentration (Mass Balance)**

May 19, 2001

Exposure  
Operator: Mitchell Irvin

**Chamber Exhaust Flows**

Date	Time	CBR5 (Control)	CBR6 (2g/m3)	CBR7 (10g/m3)	CBR8 (20g/m3)
05/19/2001	06:30	425	416	409	441
05/19/2001	07:00	425	417	410	444
05/19/2001	07:30	424	417	410	443
05/19/2001	08:00	413	408	400	434
05/19/2001	08:30	410	405	397	431
05/19/2001	09:00	410	406	398	431
05/19/2001	09:30	410	405	398	431
05/19/2001	10:00	409	405	397	431
05/19/2001	10:30	409	405	397	430
05/19/2001	11:00	408	404	396	430
05/19/2001	11:30	408	404	396	429
05/19/2001	12:00	408	404	396	430
<b>Average*</b>			<b>408</b>	<b>400</b>	<b>434</b>
<b>CBR Conc. (g/m<sup>3</sup>)</b>			1.93	9.37	19.52
<b>Gen. Runtime (min)</b>			377	377	377
<b>Calculated VC Use (g)*</b>			297	1414	3192

**Mass Balance**

Anticipated usage (g)	4903
Actual Usage (g)	4430
Actual / Anticipated (%)	90

**Comments:**

*(This section contains a large handwritten scribble that obscures the text.)*

WV 9/24/03

$$* \text{ Calculated VC Use (g)} = \frac{\text{CBR Conc (g/l)} \times \text{Gen Runtime (min)} \times \text{Exhaust Flow (lpm)}}{1000 \left( \frac{\text{l}}{\text{m}^3} \right)}$$

E-2 Pre-Study Homogeneity Study

2/23/01

### Chamber Homogeneity Data Sheet

Protocol Number: FY01-013 Room Number: 408  
 Performed By: MIRAN Date: 5-18-01  
 Monitor Type: MIRAN

Chamber	6				7				8			
Monitor S/N	MIR6 No S/N				MIR7 No S/N				MIR8 SW 60625			
Date	5-19-01				5-18-01				5-18-01			
Sample Port	Time	Monitor Reading	%Normalized Reading	Time	Monitor Reading	%Normalized Reading	Time	Monitor Reading	%Normalized Reading	Time	Monitor Reading	%Normalized Reading
BACK:												
B1	0757	1.94	97.49	1132	9.33	193.21	0930	20.37	100.00	0930	20.37	100.00
B2	0802	1.94	97.49	1058	9.19	101.66	0936	20.29	100.00	0936	20.29	100.00
B3	0807	1.94	97.49	1144	8.80	97.35	0942	20.01	99.50	0942	20.01	99.50
B4	0812	1.96	98.49	1150	9.03	99.59	0948	20.16	100.00	0948	20.16	100.00
FRONT:												
F1	0721	2.12	106.53	1102	8.85	110.08	0950	20.27	100.00	0950	20.27	100.00
F2	0727	1.99	100.00	1108	8.96	99.12	0956	19.81	98.51	0956	19.81	98.51
F3	0739	2.03	102.01	1114	9.10	100.66	0912	19.91	99.01	0912	19.91	99.01
F4	0745	2.01	101.01	1120	9.05	100.11	0918	20.09	99.90	0918	20.09	99.90
Mean		1.99	100		9.04	100		20.11	100		20.11	100
STDEV		0.06	TPV 3.02 BPV 3.02		0.17	TPV 1.58 BPV 1.32		0.20	TPV 0.99 BPV 0.83		0.20	TPV 0.99 BPV 0.83
REF. PT 1 <sup>st</sup>	0721	2.12	105.00	1102	8.85	98.44	0900	20.27	100.00	0900	20.27	100.00
2 <sup>nd</sup>	0751	1.97	97.53	1126	9.08	101.00	0924	20.06	99.60	0924	20.06	99.60
3 <sup>rd</sup>	0817	1.96	97.03	1156	9.03	100.44	0954	20.10	99.80	0954	20.10	99.80
Mean		2.02	100		8.99	100		20.14	100		20.14	100
STDEV		0.09	WPV 4.46		0.12	WPV 1.33		0.11	WPV 0.55		0.11	WPV 0.55

See pages 95, 96 & 97  
 for data file printout.  
 04/5/24/01

Comments:  
 TPV = (SD [sampling points]/Mean) x 100  
 NOTE: If TPV > WPV, then BPV = Square Root (TPV<sup>2</sup> - WPV<sup>2</sup>)  
 NOTE: If WPV > TPV, then BPV = TPV  
 WPV = (SD [Reference Points]/Mean) x 100

### Chamber Homogeneity Data Sheet

Protocol Number: FY01-13 Room Number: 408  
 Performed By: M.I. RUBIN Date: 6-6-01, 6-8-01, 6-13-01  
 Monitor Type: MI-RAN Reviewed By: OMP 6/19/01

Chamber	Monitor S/N	Date	Time	Monitor Reading	%Normalized Reading	Time	Monitor Reading	%Normalized Reading	Time	Monitor Reading	%Normalized Reading
BACK:											
B1			1235	20.61	101.63	0947	9.46	101.39	0940	2.09	97.66
B2			1240	20.05	98.87	0953	9.40	100.75	0945	2.15	100.47
B3			1246	20.65	101.82	0959	9.26	99.25	0951	2.04	95.33
B4			1252	20.95	100.35	1005	9.27	99.36	0954	2.12	99.07
FRONT:											
F1			1205	20.51	101.13	0917	9.31	99.99	0914	2.14	100.00
F2			1211	19.59	96.80	0923	9.22	98.82	0919	2.20	102.80
F3			1217	20.50	101.08	0929	9.39	100.11	0924	2.22	103.74
F4			1223	19.97	98.17	0935	9.41	100.86	0929	2.13	99.53
Mean				20.28	100		9.39	100		2.14	100
STDEV				0.97	TPV 1.82		0.08	TPV 0.86		0.06	TPV 2.80
					BPV 1.62			BPV 0.86			BPV 2.80
REF. PT 1 <sup>st</sup>			1205	20.51	99.42	0917	9.31	98.94	0914	2.64	101.90
2 <sup>nd</sup>			1229	20.55	99.61	0941	9.49	100.85	0934	2.17	103.99
3 <sup>rd</sup>			1258	20.82	100.92	1011	9.44	100.92	1001	2.00	95.24
Mean				20.63	100		9.41	100		2.10	100
STDEV				0.17	WPV 0.82		0.09	WPV 0.96		0.09	WPV 4.29

Comments: TPV = (SD [sampling points]/Mean) x 100  
 NOTE: if TPV > WPV, then BPV = Square Root (TPV<sup>2</sup> - WPV<sup>2</sup>)  
 NOTE: if WPV > TPV, then BPV = TPV  
 WPV = (SD [Reference Points]/Mean) x 100

DATA CHECKED  
 By: Case Date: 7/16/01

Exact copy of original document  
By: DA Date: 3/25/05

### Chamber Homogeneity Data Sheet

Protocol Number: FY01-10 P.I. J. Benson Room Number: 408  
 Performed By: MARVIN Date: 6-6-01 ~ 6-8-01 - 6-13-01 Reviewed By: DA 6/19/01  
 Monitor Type: MARVIN

Chamber	Monitor S/N	Date	Time	Monitor Reading	% Normalized Reading	Time	Monitor Reading	% Normalized Reading	Time	Monitor Reading	% Normalized Reading
BACK:											
B1	1235	20.61	0947	9.46	101.39	0946	2.09				
B2	1240	20.05	0953	9.40	100.75	0945	2.15				
B3	1246	20.65	0959	9.26	99.25	0951	2.04				
B4	1252	20.35	1005	9.27	99.36	0956	2.12				
FRONT:											
F1	1205	20.51	0917	9.31	100.00	0914	2.14				
F2	1211	19.59	0923	9.22	98.82	0919	2.20				
F3	1217	20.50	0929	9.34	100.11	0924	2.22				
F4	1223	19.97	0937	9.41	100.86	0929	2.13				
Mean		20.28		9.33	100						100
STDEV		0.07		0.08	TPV 0.86						TPV
					BPV 0.86						BPV
REF, PT 1 <sup>st</sup>	1205	20.51	0917	9.31	98.94	0914	2.14				
2 <sup>nd</sup>	1229	20.55	0949	9.49	100.85	0934	2.17				
3 <sup>rd</sup>	1258	20.32	1011	9.44	100.32	1001	2.00				
Mean		20.63		9.41	100						100
STDEV		0.17		0.09	WPV 0.96						WPV

MI 6/13/01  
6/13/01

MI 6/13/01

500 ATTACHED SHEET.  
DATA HAS BEEN TRANSMFERRED  
AND COMPLETED FOR BASE OF

MI 6/13/01

Comments:  
 TPV = (SD [sampling points]/Mean) x 100  
 NOTE: If TPV > WPV, then BPV = Square Root (TPV<sup>2</sup> - WPV<sup>2</sup>).  
 NOTE: If WPV > TPV, then BPV = TPV  
 WPV = (SD [Reference Points]/Mean) x 100

Gasoline MTBE Vapor Condensate  
 Chamber CBR8\_Miran Concentration Samples  
 Initiated on 6/6/01 at 07:01

Date	Start Samp	End Samp	Samp Time	Avg. (g/m3)	STDEV	# Values
6/6/01	07:20	09:20	121	21.31	0.37	2003
6/6/01	09:20	11:21	121	20.86	0.1	1976
6/6/01	11:21	12:05	44	20.66	0.06	716
6/6/01	12:05	12:09	4	20.51	0.04	62
6/6/01	12:11	12:15	4	19.59	0.06	69
6/6/01	12:17	12:21	4	20.5	0.22	66
6/6/01	12:23	12:27	4	19.97	0.08	67
6/6/01	12:29	12:33	4	20.55	0.16	67
6/6/01	12:35	12:39	4	20.61	0.05	66
6/6/01	12:40	12:44	3	20.05	0.07	57
6/6/01	12:46	12:50	4	20.65	0.23	68
6/6/01	12:52	12:56	4	20.35	0.06	67
6/6/01	12:58	13:02	4	20.82	0.13	68
6/6/01	13:02	13:20	18	21.08	0.04	297

*Distribution  
 Data*

*A. Gomez 6-6-01*

Gasoline MTBE Vapor Condensate  
 Chamber CBR7\_Miran Concentration Samples  
 Initiated on 6/8/01 at 07:00

Date	Start Samp	End Samp	Samp Time	Avg. (g/m3)	STDEV	# Values
6/8/01	07:17	09:17	120	10.11	0.77	1986
6/8/01	09:17	09:21	4	9.31	0.02	65
6/8/01	09:23	09:27	4	9.22	0.04	64
6/8/01	09:29	09:33	4	9.34	0.06	65
6/8/01	09:35	09:39	4	9.41	0.05	64
6/8/01	09:41	09:45	4	9.49	0.04	65
6/8/01	09:47	09:51	4	9.46	0.02	65
6/8/01	09:53	09:57	4	9.4	0.02	62
6/8/01	09:59	10:03	4	9.26	0.03	66
6/8/01	10:05	10:09	4	9.27	0.05	67
6/8/01	10:11	10:16	5	9.44	0.06	82
6/8/01	10:16	11:17	61	9.34	0.13	1006
6/8/01	11:17	13:17	120	9.62	0.31	1987

*Distribution  
Data*

*A. Gomez 6-8-01*

Gasoline MTBE Vapor Condensate  
 Chamber CBR6\_ Miran Concentration Samples  
 Initiated on 6/13/01 at 06:58

Date	Start Samp	End Sampl	Samp Time	Avg. (g/m3	STDEV	# Values
6/13/01	07:14	09:14	120	2.02	0.15	1817
6/13/01	09:14	09:18	4	2.14	0.06	61
6/13/01	09:19	09:23	4	2.2	0.01	58
6/13/01	09:24	09:28	4	2.22	0.02	61
6/13/01	09:29	09:33	4	2.13	0.02	62
6/13/01	09:34	09:38	4	2.17	0.02	61
6/13/01	09:40	09:44	4	2.09	0.04	62
6/13/01	09:45	09:49	4	2.15	0.01	62
6/13/01	09:51	09:55	4	2.04	0.02	62
6/13/01	09:56	10:00	4	2.12	0.01	62
6/13/01	10:01	10:05	4	2	0.02	61
6/13/01	10:05	11:14	69	1.94	0.07	1033
6/13/01	11:14	13:14	120	1.96	0.13	1791

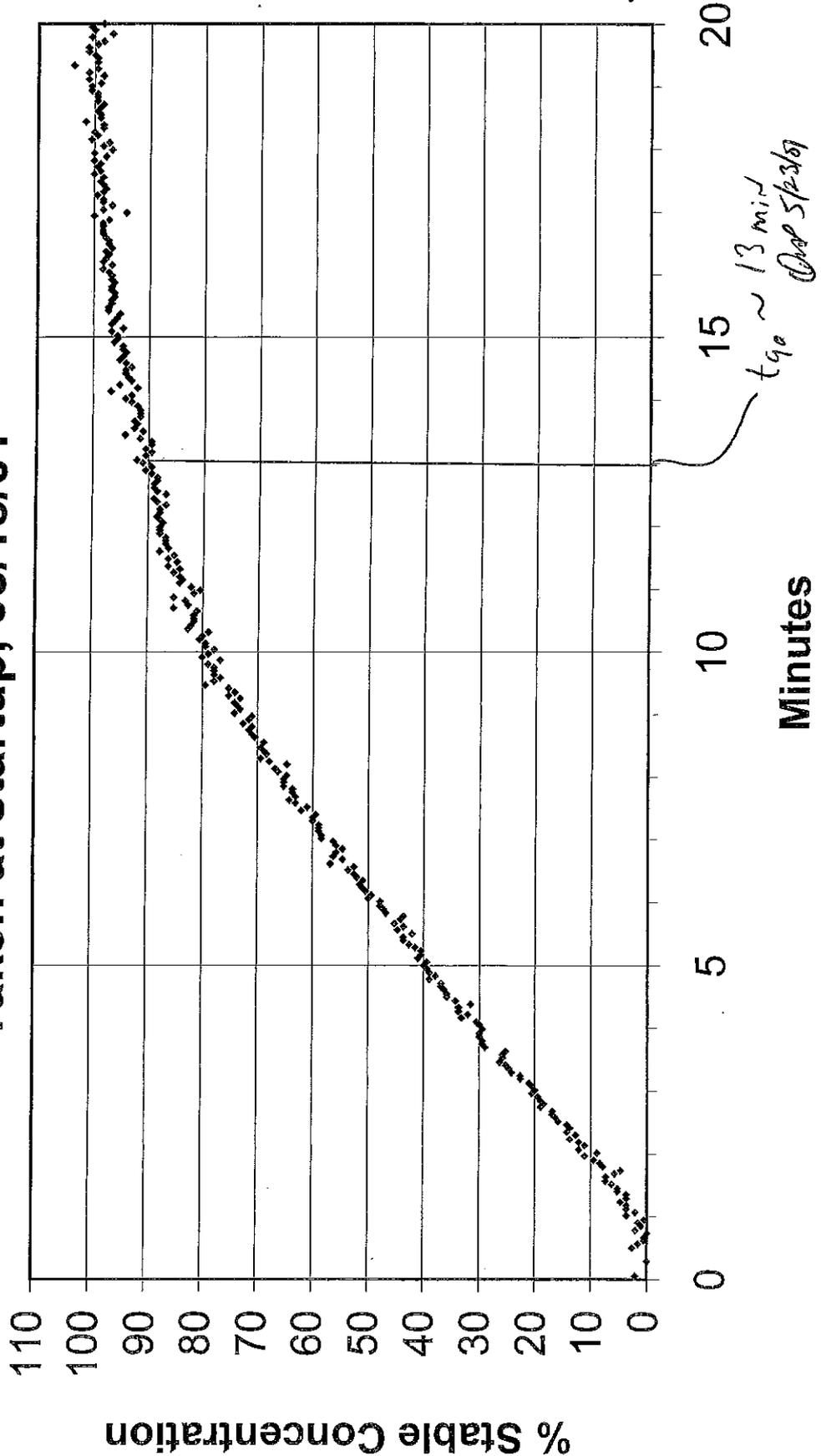
*Distribution  
Data*

*A. Gomez 6-13-01*

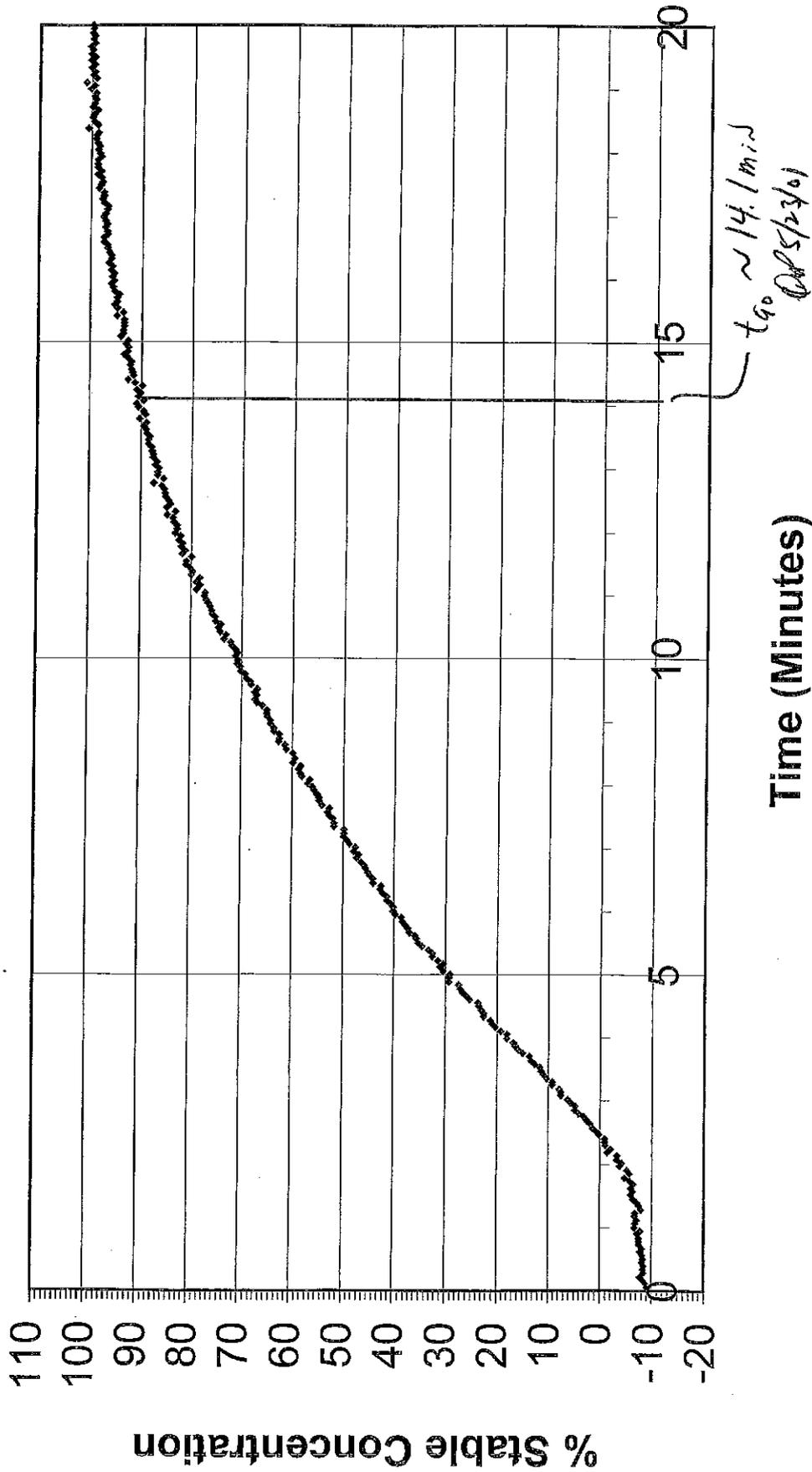
E-3 T90 Determination

E  
12/21/01

# GMVC Chamber 6 (2 g/m<sup>3</sup>) Rise Time Taken at startup, 05/18/01

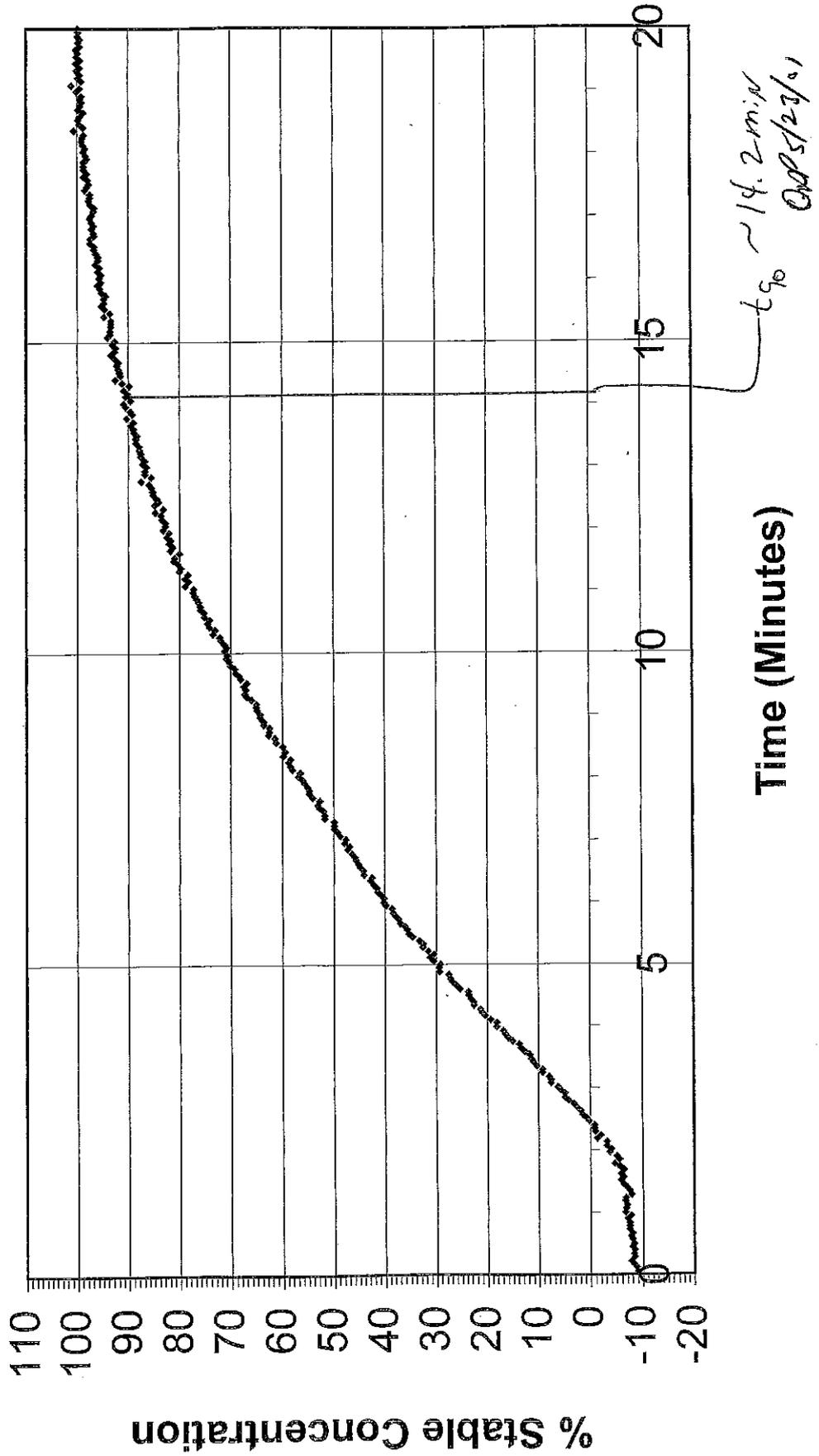


# GMVC Chamber 7 (10 g/m<sup>3</sup>) Rise Time Taken at startup, 05/18/01



DW  
5/23/01

### GMVC Chamber 8 (20 g/m<sup>3</sup>) Rise Time Taken at startup, 05/18/01



E-4 Absence of Aerosol Confirmation

# TSI - Aerodynamic Particle Sizer

Study Number FY01-013

(ROOM SAMPLE)

File Read: MIR8room

Sample Number: 1

*Revised QAD  
5/24/01*

Record Date: 05-18-01 14:09:24

Sample Time [s]: 60

Lower Channel Dia [ $\mu\text{m}$ ]: 0.453

Upper Channel Dia [ $\mu\text{m}$ ]: 31.6

Dilution Ratio: 1 to 1

Density [g/cc]: 1

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	7.662E-1	1.353E+0	8.037E+0
mean ( $\mu\text{m}$ )	8.964E-1	3.125E+0	7.809E+0
geo. mean ( $\mu\text{m}$ )	8.198E-1	1.788E+0	5.507E+0
mode ( $\mu\text{m}$ )	6.732E-1	1.037E+1	1.037E+1
geo. st. dev.	1.459E+0	2.642E+0	2.696E+0
total conc.	0.43 (#/cm <sup>3</sup> )	1.53 ( $\mu\text{m}^2/\text{cm}^3$ )	0.0008 (mg/m <sup>3</sup> )

# TSI - Aerodynamic Particle Sizer

Study Number FY01-013

*Review Q1*

File Read: (ROOM SAMPLE)

MIR8room

Sample Number: 2

Record Date: 05-18-01 14:10:34

Sample Time [s]: 60

Lower Channel Dia [ $\mu\text{m}$ ]: 0.453

Upper Channel Dia [ $\mu\text{m}$ ]: 31.6

Dilution Ratio: 1 to 1

Density [g/cc]: 1

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	7.689E-1	1.286E+0	3.167E+0
mean ( $\mu\text{m}$ )	9.085E-1	2.228E+0	5.758E+0
geo. mean ( $\mu\text{m}$ )	8.299E-1	1.522E+0	3.538E+0
mode ( $\mu\text{m}$ )	6.732E-1	9.647E-1	1.382E+1
geo. st. dev.	1.469E+0	2.153E+0	2.778E+0
total conc.	0.46 (#/cm <sup>3</sup> )	1.57 ( $\mu\text{m}^2/\text{cm}^3$ )	0.00058 (mg/m <sup>3</sup> )

# TSI - Aerodynamic Particle Sizer

Newland Q44

File Read: *(ROOM sample)* MIR8room      Sample Number: 3  
 Record Date: 05-18-01 14:11:43      Sample Time [s]: 60  
 Lower Channel Dia [ $\mu\text{m}$ ]: 0.453      Upper Channel Dia [ $\mu\text{m}$ ]: 31.6  
 Dilution Ratio: 1 to 1      Density [g/cc]: 1

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	7.539E-1	1.445E+0	8.008E+0
mean ( $\mu\text{m}$ )	8.928E-1	3.119E+0	6.793E+0
geo. mean ( $\mu\text{m}$ )	8.081E-1	1.882E+0	5.069E+0
mode ( $\mu\text{m}$ )	6.264E-1	9.647E+0	1.037E+1
geo. st. dev.	1.478E+0	2.613E+0	2.468E+0
total conc.	0.46 (#/cm <sup>3</sup> )	1.69 ( $\mu\text{m}^2/\text{cm}^3$ )	0.00088 (mg/m <sup>3</sup> )

Study Number FY01-013

# Aerodynamic Particle Sizer (CONTROL CBR)

*Revised  
08/24/01*

**Model:** MIR8ctrl      **Sample Number:** 1  
**Date:** 05-18-01 14:22:54      **Sample Time [s]:** 60  
**Channel Dia [ $\mu\text{m}$ ]:** 0.453      **Upper Channel Dia [ $\mu\text{m}$ ]:** 31.6  
**Ratio:** 1 to 1      **Density [g/cc]:** 1

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	5.807E-1	2.293E+0	3.976E+0
mean ( $\mu\text{m}$ )	7.648E-1	2.382E+0	3.421E+0
geo. mean ( $\mu\text{m}$ )	6.661E-1	1.765E+0	3.023E+0
mode ( $\mu\text{m}$ )	4.698E-1	4.371E+0	4.371E+0
geo. st. dev.	1.553E+0	2.303E+0	1.803E+0
total conc.	0.12 (#/cm <sup>3</sup> )	0.37 ( $\mu\text{m}^2/\text{cm}^3$ )	0.00015 (mg/m <sup>3</sup> )

Study Number FY01-013

*Newton QWP 5/24/01*

# FSI - Aerodynamic Particle Sizer

File Read: *(ROOM sample)* MIR8room      Sample Number: 3  
Record Date: 05-18-01 14:11:43      Sample Time [s]: 60  
Lower Channel Dia [ $\mu\text{m}$ ]: 0.453      Upper Channel Dia [ $\mu\text{m}$ ]: 31.6  
Dilution Ratio: 1 to 1      Density [g/cc]: 1

*2/1*

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	7.539E-1	1.445E+0	8.008E+0
mean ( $\mu\text{m}$ )	8.928E-1	3.119E+0	6.793E+0
geo. mean ( $\mu\text{m}$ )	8.081E-1	1.882E+0	5.069E+0
mode ( $\mu\text{m}$ )	6.264E-1	9.647E+0	1.037E+1
geo. st. dev.	1.478E+0	2.613E+0	2.468E+0
total conc.	0.46 (#/cm <sup>3</sup> )	1.69 ( $\mu\text{m}^2/\text{cm}^3$ )	0.00088 (mg/m <sup>3</sup> )

# TSI - Aerodynamic Particle Sizer (CONTROL CBR) *rewind 08/5/2*

**File Read:** MIR8ctrl                      **Sample Number:** 1  
**Record Date:** 05-18-01 14:22:54                      **Sample Time [s]:** 60  
**Lower Channel Dia [ $\mu\text{m}$ ]:** 0.453                      **Upper Channel Dia [ $\mu\text{m}$ ]:** 31.6  
**Dilution Ratio:** 1 to 1                      **Density [g/cc]:** 1

**Statistics**

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	5.807E-1	2.293E+0	3.976E+0
mean ( $\mu\text{m}$ )	7.648E-1	2.382E+0	3.421E+0
geo. mean ( $\mu\text{m}$ )	6.661E-1	1.765E+0	3.023E+0
mode ( $\mu\text{m}$ )	4.698E-1	4.371E+0	4.371E+0
geo. st. dev.	1.553E+0	2.303E+0	1.803E+0
total conc.	0.12 (#/cm <sup>3</sup> )	0.37 ( $\mu\text{m}^2/\text{cm}^3$ )	0.00015 (mg/m <sup>3</sup> )

# Aerodynamic Particle Sizer (control CBR)

*Revised OAR  
5/24/01*

**Sample Number:** 2  
**Sample Time [s]:** 60  
**Upper Channel Dia [ $\mu\text{m}$ ]:** 31.6  
**Density [g/cc]:** 1  
**Channel Dia [ $\mu\text{m}$ ]:** 0.453  
**Ratio:** 1 to 1  
**Sample Name:** MIR8ctrl  
**Date:** 05-18-01 14:24:04

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	6.385E-1	1.229E+0	3.269E+0
mean ( $\mu\text{m}$ )	7.809E-1	1.968E+0	3.038E+0
geo. mean ( $\mu\text{m}$ )	7.002E-1	1.472E+0	2.560E+0
mode ( $\mu\text{m}$ )	4.698E-1	4.371E+0	4.371E+0
geo. st. dev.	1.505E+0	2.164E+0	1.943E+0
total conc.	0.12 (#/cm <sup>3</sup> )	0.33 ( $\mu\text{m}^2/\text{cm}^3$ )	0.00011 (mg/m <sup>3</sup> )

Study Number FY01-013

# Aerodynamic Particle Sizer (control CBE)

Round Trip 5/24/01

: MIR8ctrl                      Sample Number: 3  
ate: 05-18-01 14:25:14              Sample Time [s]: 60  
annel Dia [ $\mu\text{m}$ ]: 0.453              Upper Channel Dia [ $\mu\text{m}$ ]: 31.6  
Ratio: 1 to 1                      Density [g/cc]: 1

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	6.170E-1	1.457E+0	2.230E+0
mean ( $\mu\text{m}$ )	7.831E-1	1.538E+0	1.972E+0
geo. mean ( $\mu\text{m}$ )	6.919E-1	1.303E+0	1.780E+0
mode ( $\mu\text{m}$ )	4.698E-1	1.486E+0	2.839E+0
geo. st. dev.	1.570E+0	1.828E+0	1.645E+0
total conc.	0.10 (#/cm <sup>3</sup> )	0.27 ( $\mu\text{m}^2/\text{cm}^3$ )	7e-005 (mg/m <sup>3</sup> )

# SI - Aerodynamic Particle Sizer (C13R8)

Study Number FY01-013

*Revised QAP  
5/24/4*

<b>Probe Read:</b>	MIR8high	<b>Sample Number:</b>	1
<b>Record Date:</b>	05-18-01 14:15:21	<b>Sample Time [s]:</b>	60
<b>Upper Channel Dia [<math>\mu\text{m}</math>]:</b>	0.453	<b>Upper Channel Dia [<math>\mu\text{m}</math>]:</b>	31.6
<b>Flow Ratio:</b>	1 to 1	<b>Density [g/cc]:</b>	1

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	7.924E-1	1.919E+0	2.298E+0
mean ( $\mu\text{m}$ )	1.009E+0	1.854E+0	2.256E+0
geo. mean ( $\mu\text{m}$ )	8.708E-1	1.628E+0	2.078E+0
mode ( $\mu\text{m}$ )	4.698E-1	3.051E+0	3.051E+0
geo. st. dev.	1.680E+0	1.716E+0	1.554E+0
total conc.	0.03 (#/cm <sup>3</sup> )	0.11 ( $\mu\text{m}^2/\text{cm}^3$ )	3.5e-005 (mg/m <sup>3</sup> )

# TSI - Aerodynamic Particle Sizer (CBR8)

Study Number FY01-013

*Wiederup*  
5/14/01

File Read: MIR8high      Sample Number: 2  
Record Date: 05-18-01 14:16:30      Sample Time [s]: 60  
Lower Channel Dia [ $\mu\text{m}$ ]: 0.453      Upper Channel Dia [ $\mu\text{m}$ ]: 31.6  
Dilution Ratio: 1 to 1      Density [g/cc]: 1

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	6.498E-1	9.173E-1	9.683E-1
mean ( $\mu\text{m}$ )	7.547E-1	9.150E-1	9.994E-1
geo. mean ( $\mu\text{m}$ )	7.201E-1	8.728E-1	9.579E-1
mode ( $\mu\text{m}$ )	6.264E-1	1.382E+0	1.382E+0
geo. st. dev.	1.352E+0	1.364E+0	1.347E+0
total conc.	0.02 (#/cm <sup>3</sup> )	0.03 ( $\mu\text{m}^2/\text{cm}^3$ )	4.8e-006 (mg/m <sup>3</sup> )

# SI - Aerodynamic Particle Sizer (CBK 8)

Study Number FY01-013

*Revised QOL  
5/24/01*

**Read:** MIR8high                      **Sample Number:** 3  
**Start Date:** 05-18-01 14:17:41                      **Sample Time [s]:** 60  
**Lower Channel Dia [ $\mu\text{m}$ ]:** 0.453                      **Upper Channel Dia [ $\mu\text{m}$ ]:** 31.6  
**Flow Ratio:** 1 to 1                      **Density [g/cc]:** 1

## Statistics

	Number Particle Size	Surface Particle Size	Mass Particle Size
median ( $\mu\text{m}$ )	7.156E-1	1.406E+0	1.550E+0
mean ( $\mu\text{m}$ )	8.610E-1	1.388E+0	1.666E+0
geo. mean ( $\mu\text{m}$ )	7.712E-1	1.243E+0	1.536E+0
mode ( $\mu\text{m}$ )	4.698E-1	2.458E+0	2.458E+0
geo. st. dev.	1.564E+0	1.628E+0	1.532E+0
total conc.	0.04 (#/cm <sup>3</sup> )	0.11 ( $\mu\text{m}^2/\text{cm}^3$ )	2.5e-005 (mg/m <sup>3</sup> )

E-5 GMVC Daily Exposure Concentrations and Nominal Usage

## GMVC Daily Exposure Concentrations and Nominal Usage

Date	Exposure Day	Chamber 6 (2g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20g/m <sup>3</sup> )		Nominal Usage (Mass Balance)		
		Conc.	Stdev	Conc.	Stdev	Conc.	Stdev	Anticipated Usage (g)	Actual Usage (g)	% Usage (Actual / Anticipated)
5/23/2001	1	2.08	0.08	9.73	0.53	19.17	0.57	4909	4700	96
5/24/2001	2	1.93	0.16	9.14	0.49	17.76	1.50	4534	4390	97
5/25/2001	3	2.02	0.07	9.92	0.53	19.50	0.46	5195	4955	95
5/28/2001	4	1.96	0.03	9.80	0.17	18.73	0.11	5086	4985	98
5/29/2001	5	1.98	0.05	10.19	0.62	19.18	0.60	5246	5045	96
5/30/2001	6	2.03	0.11	9.57	0.19	18.84	0.12	5096	4660	91
5/31/2001	7	1.98	0.15	8.74	0.75	18.28	1.73	4860	4505	93
6/1/2001	8	1.97	0.04	9.56	0.27	18.89	0.38	5171	4780	92
6/4/2001	9	2.05	0.08	9.27	0.45	19.12	0.48	5155	4720	92
6/5/2001	10	1.94	0.04	9.34	0.39	19.48	0.21	5171	4865	94
6/6/2001	11	1.93	0.10	9.62	0.11	21.02	0.33	5564	5355	96
6/7/2001	12	1.88	0.06	9.93	0.39	20.65	0.63	5427	5220	96
6/8/2001	13	1.92	0.04	9.76	0.39	20.14	1.25	5310	5055	95
6/11/2001	14	2.00	0.08	9.73	0.24	20.35	0.53	5581	5360	96
6/12/2001	15	1.94	0.03	9.52	0.08	20.16	0.55	5450	5265	97
6/13/2001	16	1.98	0.04	9.46	0.07	19.47	0.85	5330	5110	96
6/14/2001	17	2.01	0.06	10.13	0.52	19.87	0.82	5529	5280	95
6/15/2001	18	1.98	0.06	9.66	0.16	20.29	0.47	5499	5225	95
6/18/2001	19	2.01	0.08	9.60	0.33	19.96	0.93	5450	5145	94
6/19/2001	20	2.00	0.07	9.62	0.11	20.51	0.48	5409	5085	94
6/20/2001	21	2.05	0.05	10.15	0.49	20.48	1.27	5506	5170	94
6/21/2001	22	2.02	0.02	9.70	0.31	21.02	0.62	5484	5105	93
6/22/2001	23	2.08	0.06	10.00	0.19	21.31	0.42	5579	4970	89
6/25/2001	24	2.04	0.06	9.99	0.11	20.44	0.42	5411	5195	96
6/26/2001	25	2.06	0.10	10.27	0.07	20.41	0.36	5498	5280	96
6/27/2001	26	2.08	0.09	10.09	0.20	20.67	0.25	5456	5135	94
6/28/2001	27	2.11	0.06	10.33	0.09	20.67	0.42	5521	5160	93
6/29/2001	28	2.12	0.06	10.21	0.04	20.61	0.15	5511	5120	93
7/2/2001	29	2.10	0.11	10.21	0.58	19.27	0.62	5270	4885	93
7/3/2001	30	1.98	0.09	10.10	0.16	20.60	0.34	5460	5040	92
7/4/2001	**	Holiday		Holiday		Holiday		Holiday		
7/5/2001	31	2.04	0.08	9.66	0.48	20.27	0.33	5600	5170	92
7/6/2001	32	2.08	0.06	10.37	0.13	20.53	0.33	6027	5610	93
7/9/2001	33	2.26	0.08	10.09	0.06	21.84	0.17	5778	5395	93
7/10/2001	34	1.94	0.12	10.17	0.10	20.85	0.27	5556	5185	93
7/11/2001	35	2.03	0.08	10.02	0.54	19.67	0.27	5449	5160	95
7/12/2001	36	2.07	0.07	10.11	0.40	20.66	0.95	5438	5165	95
7/13/2001	37	1.99	0.11	10.60	0.14	20.45	0.39	5519	5200	94
7/16/2001	38	1.99	0.09	10.10	0.47	20.25	0.64	5438	5135	94
7/17/2001	39	1.99	0.02	9.56	0.13	19.85	0.19	5268	5040	96
7/18/2001	40	1.96	0.08	10.21	0.22	20.62	0.42	5498	5190	94
7/19/2001	41	1.86	0.13	10.00	0.42	19.75	0.98	5332	5160	97
7/20/2001	42	2.11	0.06	10.14	0.22	20.77	0.51	5614	5390	96
7/23/2001	43	1.98	0.09	10.16	0.27	19.56	0.50	5247	5035	96
7/24/2001	44	1.97	0.03	10.70	0.04	21.49	0.39	5756	5450	95
7/25/2001	45	2.01	0.08	10.39	0.31	20.08	0.45	5406	5350	99
7/26/2001	46	2.01	0.14	10.14	0.16	19.43	0.87	5254	4945	94
7/27/2001	47	2.11	0.08	10.58	0.07	20.32	0.10	5481	5385	98
7/30/2001	48	1.86	0.03	10.43	0.15	20.70	0.30	5662	5675	100
7/31/2001	49	1.98	0.14	9.93	0.09	19.71	0.57	5225	5180	99
8/1/2001	50	1.99	0.07	10.25	0.35	19.67	0.80	5250	5100	97
8/2/2001	51	1.97	0.07	10.00	0.22	19.28	0.40	5416	5235	97
8/3/2001	52	2.01	0.04	9.83	0.25	20.73	0.35	5422	5280	97
8/6/2001	53	2.03	0.03	10.68	0.13	20.36	0.72	5521	5365	97
8/7/2001	54	2.04	0.07	9.67	0.38	20.92	0.27	5226	5095	97
8/8/2001	55	1.96	0.04	9.73	0.41	19.70	0.63	5046	4840	96
8/9/2001	56	1.99	0.10	10.40	0.45	21.03	0.36	5371	5175	96
8/10/2001	57	2.05	0.07	10.47	0.06	20.32	0.32	5473	5275	96
8/13/2001	58	2.01	0.02	10.18	0.15	20.76	0.15	5491	5185	94
8/14/2001	59	2.00	0.09	9.99	0.46	18.71	0.30	5083	4805	95
8/15/2001	60	1.99	0.04	9.56	0.27	20.33	0.23	5291	5075	96
8/16/2001	61	1.96	0.10	10.04	0.44	20.19	0.38	5392	5130	95
8/17/2001	62	1.96	0.03	9.85	0.38	19.37	0.72	5197	4990	96
8/20/2001	63	2.05	0.03	10.02	0.56	19.61	0.46	5184	5085	98
8/21/2001	64	1.94	0.03	9.66	0.13	20.34	0.25	5314	5175	97
8/22/2001	65	1.94	0.06	9.86	0.33	20.01	0.38	5548	5375	97
8/23/2001	66	2.13	0.03	10.45	0.12	19.17	0.12	5513	5285	96

## GMVC Daily Exposure Concentrations and Nominal Usage

Date	Exposure Day	Chamber 6 (2g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20g/m <sup>3</sup> )		Nominal Usage (Mass Balance)		
		Conc.	Stdev	Conc.	Stdev	Conc.	Stdev	Anticipated Usage (g)	Actual Usage (g)	% Usage (Actual / Anticipated)
8/24/2001	67	2.09	0.06	10.18	0.03	19.03	0.31	5728	5480	96
8/27/2001	68	2.00	0.02	9.97	0.08	20.26	0.35	5345	5195	97
8/28/2001	69	1.99	0.06	9.54	0.06	19.92	0.31	5159	5020	97
8/29/2001	70	2.11	0.03	9.87	0.15	20.97	0.08	5437	5235	96
8/30/2001	71	1.96	0.03	9.93	0.29	20.26	0.40	5346	5130	96
8/31/2001	72	2.04	0.03	9.73	0.17	19.21	0.34	5118	5005	98
9/3/2001	73	2.08	0.10	9.35	0.16	20.87	0.03	5702	5550	97
9/4/2001	74	2.14	0.05	9.80	0.25	19.45	0.33	5322	5140	97
9/5/2001	75	1.92	0.05	9.47	0.40	19.84	0.40	5381	5210	97
9/6/2001	76	1.99	0.05	9.73	0.21	20.09	0.62	5350	5180	97
9/7/2001	77	1.96	0.04	9.27	0.08	18.98	0.60	5618	5255	94
9/10/2001	78	1.97	0.03	9.64	0.11	19.58	0.20	5452	5195	95
9/11/2001	79	1.99	0.11	9.75	0.14	19.33	0.37	5440	5160	95
9/12/2001	80	1.95	0.06	9.79	0.77	19.29	0.34	5472	5290	97
9/13/2001	81	1.89	0.05	9.98	0.62	19.65	0.27	5563	5375	97
9/14/2001	82	1.88	0.02	9.63	0.26	19.03	0.37	5306	5150	97
9/17/2001	83	2.18	0.03	9.98	0.04	19.81	0.11	5809	5625	97
9/18/2001	84	2.04	0.11	9.25	0.04	18.71	0.30	5444	5330	98
9/19/2001	85	1.94	0.03	10.36	0.27	20.90	0.09	6045	5860	97
9/20/2001	86	2.04	0.05	10.11	0.22	20.03	0.20	5830	5625	96
9/21/2001	87	2.00	0.11	10.03	0.33	20.11	0.25	5927	5700	96
9/24/2001	88	1.91	0.03	9.45	0.16	20.35	0.08	5332	5475	103
9/25/2001	89	2.04	0.13	10.02	0.16	20.44	0.14	5700	5505	97
9/26/2001	90	2.04	0.07	10.04	0.17	20.76	0.35	5775	5610	97
9/27/2001	91	2.03	0.08	10.49	0.50	20.49	0.57	5776	5670	98
9/28/2001	92	2.12	0.06	10.67	0.41	20.76	0.71	6074	5920	97
10/1/2001	93	2.12	0.06	10.69	0.22	21.45	0.05	6015	5945	99
10/2/2001	94	2.16	0.06	10.74	0.04	21.61	0.04	6055	6025	100
10/3/2001	95	2.04	0.02	10.82	0.30	21.09	0.09	5969	5825	98
10/4/2001	96	1.99	0.01	10.56	0.10	21.65	0.19	6114	6025	99
10/5/2001	97	1.99	0.10	10.02	0.22	18.99	0.24	5584	5595	100
10/8/2001	98	2.18	0.03	10.82	0.03	21.36	0.10	6218	5850	94
10/9/2001	99	2.00	0.02	10.68	0.11	20.58	0.60	6015	5700	95
10/10/2001	100	2.06	0.02	9.95	0.18	21.06	0.12	6029	5655	94
10/11/2001	101	1.97	0.06	10.13	0.23	20.08	0.23	5909	5555	94
10/12/2001	102	1.94	0.08	9.58	0.31	19.31	0.47	5595	5315	95
10/15/2001	103	1.99	0.07	10.16	0.17	19.91	0.12	5545	5520	100
10/16/2001	104	2.05	0.01	9.84	0.21	20.12	0.30	5423	5435	100
10/17/2001	105	2.00	0.08	9.95	0.67	20.03	0.80	5402	5130	95
10/18/2001	106	1.96	0.10	10.14	0.53	19.77	0.71	5366	5055	94
10/19/2001	107	1.95	0.07	10.40	0.40	19.98	0.42	5553	5220	94
10/22/2001	108	2.01	0.04	10.35	0.13	19.82	0.32	5500	5220	95
10/23/2001	109	2.05	0.15	9.70	0.64	19.93	0.71	5404	5270	98
10/24/2001	110	2.03	0.09	10.32	0.14	20.94	0.03	5754	5510	96
10/25/2001	111	2.03	0.04	10.63	0.08	21.31	0.22	5805	5520	95
10/26/2001	112	2.08	0.01	10.72	0.01	20.31	0.05	5732	5330	93
10/29/2001	113	1.95	0.02	10.80	0.18	20.71	0.03	5880	5375	91
10/30/2001	114	1.92	0.02	9.99	0.42	20.19	0.41	5610	5155	92
10/31/2001	115	1.99	0.07	9.88	0.51	18.75	0.43	5333	4900	92
11/1/2001	116	1.91	0.12	9.98	0.26	20.51	0.43	5708	5250	92
11/2/2001	117	1.91	0.02	10.44	0.37	20.67	0.02	5731	5400	94
11/5/2001	118	2.01	0.07	10.01	0.60	21.48	0.26	5953	5340	90
11/6/2001	119	2.02	0.06	9.96	0.69	19.38	0.83	5545	4940	89
11/7/2001	120	2.10	0.09	10.39	0.06	20.87	0.11	5908	5290	90
11/8/2001	121	2.05	0.06	10.72	0.22	21.30	0.37	5973	5365	90
11/9/2001	122	2.04	0.09	10.17	0.06	21.25	0.34	6046	5495	91
11/12/2001	123	2.04	0.11	9.89	0.08	20.44	0.20	5642	5595	99
11/13/2001	124	2.12	0.11	9.65	0.38	20.76	0.25	5639	5665	100
11/14/2001	125	1.96	0.09	9.43	0.08	19.34	0.03	5325	5330	100
11/15/2001	126	2.14	0.03	10.05	0.65	21.20	0.34	5813	5725	98
11/16/2001	127	2.13	0.02	10.60	0.33	20.29	0.17	5599	5410	97
11/19/2001	128	1.96	0.13	9.86	0.23	19.44	0.35	5482	5410	99
11/20/2001	129	1.88	0.04	10.86	0.27	18.73	0.78	5397	5595	104
11/21/2001	130	2.05	0.03	10.25	0.37	18.28	0.25	5257	5470	104
11/22/2001	**	Holiday		Holiday		Holiday			Holiday	
11/23/2001	131	2.03	0.04	10.54	0.13	20.18	0.60	5766	5875	102
11/26/2001	132	2.13	0.09	10.54	0.62	19.38	0.11	5479	5210	95

## GMVC Daily Exposure Concentrations and Nominal Usage

Date	Exposure Day	Chamber 6 (2g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20g/m <sup>3</sup> )		Nominal Usage (Mass Balance)		
		Conc.	Stdev	Conc.	Stdev	Conc.	Stdev	Anticipated Usage (g)	Actual Usage (g)	% Usage (Actual / Anticipated)
11/27/2001	133	2.11	0.04	10.16	0.39	20.13	0.48	5561	5240	94
11/28/2001	134*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
11/29/2001	135	1.89	0.09	10.94	0.10	19.23	0.12	5453	5165	95
11/30/2001	136	2.00	0.08	10.02	0.23	19.55	0.69	5348	5275	99
12/3/2001	137	1.96	0.04	10.65	0.22	21.67	0.36	5849	5310	91
12/4/2001	138	1.95	0.06	10.08	0.36	20.63	0.55	5589	5080	91
12/5/2001	139	1.92	0.06	10.77	0.29	19.95	0.01	5635	5080	90
12/6/2001	140	2.00	0.04	9.73	0.32	21.27	0.10	5711	5215	91
12/7/2001	141	1.98	0.03	10.26	0.07	21.90	0.02	5926	5575	94
12/10/2001	142	2.07	0.05	10.02	0.42	20.42	0.75	5478	5760	105
12/11/2001	143	2.11	0.04	9.82	0.38	19.70	0.28	5353	5505	103
12/12/2001	144	1.97	0.10	10.34	0.47	20.80	0.11	5614	5610	100
12/13/2001	145	2.00	0.09	10.41	0.15	21.36	0.19	5818	5890	101
12/14/2001	146	2.02	0.02	10.75	0.05	21.47	0.08	5769	5650	98
12/17/2001	147	2.08	0.02	10.72	0.06	21.24	0.20	5817	5830	100
12/18/2001	148	2.05	0.13	9.79	0.05	21.59	0.22	5714	5760	101
12/19/2001	149	2.00	0.12	9.99	0.39	20.07	0.99	5500	5640	103
12/20/2001	150	1.94	0.06	9.86	0.16	19.82	0.32	5391	5850	109
12/21/2001	151	1.99	0.10	10.13	0.34	19.68	0.49	5373	5540	103
12/24/2001	152	1.90	0.07	9.92	0.01	20.67	0.46	5452	5390	99
12/25/2001	**	Holiday		Holiday		Holiday			Holiday	
12/26/2001	153	1.98	0.04	10.02	0.24	20.78	0.25	5507	5365	97
12/27/2001	154	1.96	0.06	10.69	0.14	21.66	0.27	5727	5560	97
12/28/2001	155	2.05	0.05	10.35	0.36	21.17	0.12	5625	5500	98
12/31/2001	156	2.03	0.12	10.48	0.16	21.74	0.07	5735	5710	100
1/1/2002	**	Holiday		Holiday		Holiday			Holiday	
1/2/2002	157	2.01	0.02	9.92	0.05	21.45	0.25	5635	5520	98
1/3/2002	158	1.95	0.04	10.44	0.11	21.34	0.25	5662	5475	97
1/4/2002	159	2.11	0.06	10.47	0.11	21.63	0.11	5664	5630	99
1/7/2002	160	2.04	0.03	10.78	0.03	21.43	0.05	5761	5650	98
1/8/2002	161	2.01	0.03	10.67	0.04	21.76	0.15	5754	5505	96
1/9/2002	162	2.02	0.08	10.75	0.13	21.48	0.28	5639	5425	96
1/10/2002	163	2.04	0.05	10.40	0.51	20.55	0.33	5393	5375	100
1/11/2002	164	1.93	0.01	10.84	0.06	21.04	0.03	5538	5250	95
1/14/2002	165	1.99	0.02	10.85	0.18	21.77	0.16	5692	5275	93
1/15/2002	166	1.90	0.07	10.12	0.68	21.35	0.58	5434	5240	96
1/16/2002	167	2.15	0.06	10.64	0.12	21.05	0.54	5526	5320	96
1/17/2002	168	1.99	0.07	10.93	0.19	19.55	0.24	5599	4970	89
1/18/2002	169	1.99	0.06	10.46	0.01	21.18	0.23	5785	5720	99
1/21/2002	170	2.10	0.07	10.11	0.02	20.96	0.07	5721	5825	102
1/22/2002	171	2.14	0.01	10.38	0.19	21.68	0.17	5875	5975	102
1/23/2002	172	1.99	0.01	9.37	0.04	20.55	0.05	5471	5600	102
1/24/2002	173	2.01	0.01	10.05	0.13	20.55	0.20	5320	5390	101
1/25/2002	174	2.06	0.03	10.43	0.03	21.43	0.12	5606	5690	101
1/28/2002	175	1.93	0.05	9.77	0.18	21.50	0.23	5460	5585	102
1/29/2002	176	2.07	0.01	10.38	0.05	20.10	0.08	5356	5385	101
1/30/2002	177	2.09	0.01	10.30	0.01	21.25	0.03	5540	5635	102
1/31/2002	178	2.00	0.01	10.35	0.06	21.50	0.35	5749	5815	101
2/1/2002	179	2.12	0.06	10.21	0.05	21.04	0.13	5340	5390	101
2/4/2002	180	2.07	0.03	10.07	0.07	21.01	0.09	5493	5645	103
2/5/2002	181	2.13	0.08	10.03	0.24	21.59	0.41	5496	5595	102
2/6/2002	182	1.86	0.03	9.27	0.20	19.92	1.47	5160	5335	103
2/7/2002	183	2.03	0.06	9.81	0.09	19.12	0.11	5533	5665	102
2/8/2002	184	2.09	0.06	9.39	0.10	19.00	0.09	5369	5585	104
2/11/2002	185	2.01	0.01	9.96	0.08	21.73	0.01	5672	5750	101
2/12/2002	186	2.05	0.09	9.91	0.39	20.63	0.23	5666	5775	102
2/13/2002	187	2.12	0.04	9.31	0.09	20.45	0.49	5571	5930	106
2/14/2002	188	1.94	0.06	9.27	0.07	19.85	0.19	5424	5640	104
2/15/2002	189	1.94	0.03	9.36	0.02	20.97	0.03	5667	5770	102
2/18/2002	190	2.07	0.07	9.76	0.17	20.64	0.33	5667	5750	101
2/19/2002	191	2.07	0.08	9.94	0.23	20.55	0.32	5650	5650	100
2/20/2002	192	2.00	0.01	10.65	0.11	21.26	0.33	5875	5910	101
2/21/2002	193	2.05	0.08	10.51	0.11	20.96	0.16	5857	5855	100
2/22/2002	194	2.05	0.04	9.93	0.04	21.05	0.20	5763	5660	98
2/25/2002	195	2.12	0.06	10.12	0.27	21.70	0.05	5747	5610	98
2/26/2002	196	2.00	0.13	10.35	0.41	20.98	0.47	5673	5540	98
2/27/2002	197	1.95	0.02	10.00	0.08	20.93	0.17	5720	5685	99

## GMVC Daily Exposure Concentrations and Nominal Usage

Date	Exposure Day	Chamber 6 (2g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20g/m <sup>3</sup> )		Nominal Usage (Mass Balance)		
		Conc.	Stdev	Conc.	Stdev	Conc.	Stdev	Anticipated Usage (g)	Actual Usage (g)	% Usage (Actual / Anticipated)
2/28/2002	198	2.16	0.01	10.48	0.04	19.34	0.03	5484	5495	100
3/1/2002	199	2.03	0.11	10.42	0.07	20.51	0.22	5173	5255	102
3/4/2002	200	2.06	0.03	9.74	0.18	21.02	0.03	5244	5275	101
3/5/2002	201	2.12	0.06	10.13	0.07	21.12	0.02	5312	5330	100
3/6/2002	202	2.08	0.07	9.54	0.05	20.44	0.47	5079	5165	102
3/7/2002	203	2.07	0.02	9.99	0.05	20.82	0.41	5177	5195	100
3/8/2002	204	2.06	0.06	10.38	0.03	21.22	0.30	5237	5280	101
3/11/2002	205	1.95	0.02	10.24	0.31	19.46	0.09	5169	5505	107
3/12/2002	206	1.97	0.03	10.35	0.04	19.60	0.27	5215	5505	106
3/13/2002	207	2.07	0.06	10.24	0.08	19.47	0.18	5170	5610	109
3/14/2002	208	1.92	0.06	10.67	0.08	19.85	0.34	5299	5655	107
3/15/2002	209	2.10	0.05	10.88	0.12	18.78	0.16	5230	5775	110
3/18/2002	210	1.91	0.02	10.06	0.29	20.79	0.08	5152	5235	102
3/19/2002	211	2.12	0.08	10.40	0.24	20.97	0.28	5267	5345	101
3/20/2002	212	2.14	0.01	10.30	0.03	21.36	0.23	5308	5360	101
3/21/2002	213	1.86	0.02	10.05	0.18	20.58	0.36	5122	5130	100
3/22/2002	214	2.10	0.06	10.27	0.05	21.52	0.09	5313	5365	101
3/25/2002	215	1.98	0.04	10.37	0.08	21.35	0.03	5281	5450	103
3/26/2002	216	2.04	0.02	9.43	0.12	20.04	0.22	5092	5310	104
3/27/2002	217	2.08	0.08	9.87	0.11	20.84	0.06	5316	5540	104
3/28/2002	218	2.04	0.10	9.61	0.11	20.16	0.04	5193	5410	104
3/29/2002	219	2.03	0.05	10.11	0.03	18.86	0.10	5110	5345	105
4/1/2002	220	1.88	0.01	10.18	0.07	19.55	0.11	5265	5320	101
4/2/2002	221	1.96	0.10	10.76	0.04	20.72	0.12	5555	5750	104
4/3/2002	222	1.96	0.03	10.36	0.05	20.30	0.07	5454	5570	102
4/4/2002	223	1.94	0.02	9.84	0.20	19.47	0.13	5214	5360	103
4/5/2002	224	2.06	0.04	9.84	0.06	20.07	0.14	5354	5485	102
4/8/2002	225	2.07	0.01	10.28	0.03	20.51	0.03	5490	5575	102
4/9/2002	226	1.90	0.03	9.39	0.02	20.40	0.15	5283	5390	102
4/10/2002	227	2.06	0.03	9.65	0.11	21.51	0.03	5542	5680	102
4/11/2002	228	1.99	0.04	9.34	0.08	20.77	0.06	5440	5460	100
4/12/2002	229	2.09	0.02	10.07	0.03	20.19	0.05	5437	5440	100
4/15/2002	230	2.08	0.01	9.94	0.23	20.96	0.16	5516	5580	101
4/16/2002	231	2.10	0.02	10.02	0.04	21.67	0.08	5331	5370	101
4/17/2002	232	1.98	0.05	9.82	0.02	20.84	0.13	5145	5220	101
4/18/2002	233	2.00	0.03	10.01	0.07	21.00	0.08	5192	5275	102
4/19/2002	234	2.08	0.08	10.52	0.38	20.78	0.14	5251	5325	101
4/22/2002	235	1.96	0.02	9.70	0.10	20.85	0.10	5402	5525	102
4/23/2002	236	1.97	0.02	9.89	0.05	20.02	0.02	5292	5330	101
4/24/2002	237	2.10	0.08	10.42	0.28	20.62	0.05	5484	5540	101
4/25/2002	238	2.11	0.02	10.17	0.09	20.35	0.21	5401	5495	102
4/26/2002	239	2.08	0.06	9.88	0.07	20.67	0.15	5446	5470	100
4/29/2002	240	2.14	0.10	9.58	0.14	20.53	0.03	5483	5475	100
4/30/2002	241	2.08	0.03	9.85	0.11	21.07	0.12	5641	5640	100
5/1/2002	242	2.03	0.08	10.41	0.13	21.07	0.06	5672	5535	98
5/2/2002	243	1.91	0.04	9.98	0.03	20.18	0.08	5440	5335	98
5/3/2002	244	1.95	0.05	9.89	0.16	19.97	0.34	5197	5300	102
5/6/2002	245	1.99	0.04	9.74	0.01	21.15	0.03	5488	5630	103
5/7/2002	246	1.99	0.03	10.15	0.10	20.41	0.01	5473	5510	101
5/8/2002	247	1.90	0.01	9.79	0.02	21.20	0.19	5493	5600	102
5/9/2002	248	2.10	0.04	10.00	0.04	20.66	0.03	5477	5545	101
5/10/2002	249	1.95	0.07	9.41	0.33	20.22	0.37	5255	5360	102
5/13/2002	250	2.04	0.06	9.26	0.07	21.04	0.11	5409	5440	101
5/14/2002	251	2.09	0.04	9.87	0.01	20.89	0.02	5486	5525	101
5/15/2002	252	1.97	0.06	9.44	0.07	20.08	0.44	5241	5130	98
5/16/2002	253	2.13	0.04	9.92	0.03	20.82	0.04	5559	5415	97
5/17/2002	254	2.04	0.05	9.69	0.10	20.95	0.35	5478	5295	97
5/20/2002	255	2.03	0.02	9.74	0.03	21.05	0.10	5513	5330	97
5/21/2002	256	1.98	0.03	10.06	0.12	20.73	0.64	5477	5455	100
5/22/2002	257	2.17	0.00	9.78	0.13	20.77	0.08	5513	5270	96
5/23/2002	258	2.09	0.03	10.32	0.09	21.39	0.07	5680	5495	97
5/24/2002	259	1.94	0.05	9.58	0.21	20.89	0.25	5467	5345	98
5/27/2002	260	2.08	0.02	10.32	0.03	21.25	0.10	5707	5495	96
5/28/2002	261	1.91	0.05	10.29	0.03	21.84	0.08	5782	5615	97
5/29/2002	262	1.99	0.14	9.65	0.26	19.87	0.15	5381	5132	95
5/30/2002	263	2.02	0.10	9.42	0.46	20.13	0.35	5394	5250	97
5/31/2002	264	2.02	0.03	10.12	0.14	21.63	0.04	5679	5415	95

## GMVC Daily Exposure Concentrations and Nominal Usage

Date	Exposure Day	Chamber 6 (2g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20g/m <sup>3</sup> )		Nominal Usage (Mass Balance)		
		Conc.	Stdev	Conc.	Stdev	Conc.	Stdev	Anticipated Usage (g)	Actual Usage (g)	% Usage (Actual / Anticipated)
6/3/2002	265	1.97	0.03	9.90	0.07	20.86	0.19	5575	5335	96
6/4/2002	266	1.90	0.08	9.34	0.07	20.71	0.03	5502	5280	96
6/5/2002	267	1.91	0.03	10.11	0.06	21.45	0.09	5640	5320	94
6/6/2002	268	1.92	0.02	10.08	0.09	20.57	0.34	5380	5130	95
6/7/2002	269	2.02	0.05	9.55	0.01	21.06	0.11	5310	5050	95
6/10/2002	270	2.03	0.05	10.14	0.05	21.42	0.01	5454	5285	97
6/11/2002	271	2.06	0.05	10.10	0.06	20.82	0.03	5372	5370	100
6/12/2002	272	1.92	0.03	9.83	0.11	20.77	0.29	5274	5205	99
6/13/2002	273	2.01	0.09	9.47	0.05	20.47	0.11	5276	5205	99
6/14/2002	274	2.04	0.01	9.55	0.06	20.39	0.08	5316	5245	99
6/17/2002	275	2.01	0.03	10.26	0.09	20.85	0.05	5504	5460	99
6/18/2002	276	2.10	0.01	9.81	0.24	20.15	0.04	5357	5390	101
6/19/2002	277	2.08	0.03	9.85	0.04	19.92	0.05	5361	5250	98
6/20/2002	278	2.16	0.01	9.61	0.03	20.17	0.09	5302	5160	97
6/21/2002	279	2.11	0.01	9.91	0.05	21.23	0.10	5404	5310	98
6/24/2002	280	1.94	0.05	10.04	0.08	20.68	0.18	5472	5385	98
6/25/2002	281	2.03	0.02	10.55	0.04	20.76	0.09	5533	5480	99
6/26/2002	282	1.98	0.06	9.84	0.07	19.73	0.18	5322	5335	100
6/27/2002	283	2.17	0.01	9.45	0.06	20.08	0.19	5332	5305	99
6/28/2002	284	2.14	0.03	9.92	0.17	20.35	0.24	5413	5450	101
7/1/2002	285	1.99	0.04	9.80	0.12	21.20	0.23	5409	5405	100
7/2/2002	286	2.12	0.05	10.02	0.09	21.43	0.17	5489	5415	99
7/3/2002	287	1.90	0.01	9.99	0.04	20.61	0.05	5368	5290	99
7/4/2002	**	Holiday		Holiday		Holiday		Holiday		
7/5/2002	288	2.05	0.02	9.84	0.14	20.69	0.18	5443	5360	98
7/8/2002	289	2.06	0.02	9.47	0.07	21.01	0.15	5375	5280	98
7/9/2002	290	2.09	0.08	9.89	0.18	20.54	0.27	5425	5295	98
7/10/2002	291	2.01	0.05	9.98	0.15	21.40	0.21	5496	5420	99
7/11/2002	292	2.06	0.03	10.51	0.05	21.19	0.24	5545	5470	99
7/12/2002	293	2.09	0.02	10.01	0.07	21.08	0.04	5403	5380	100
7/15/2002	294	2.11	0.03	10.16	0.08	20.52	0.34	5425	5315	98
7/16/2002	295	2.04	0.13	9.81	0.03	20.77	0.09	5385	5275	98
7/17/2002	296	1.86	0.04	9.74	0.02	20.62	0.11	5287	5230	99
7/18/2002	297	2.03	0.15	9.54	0.26	19.88	0.92	5188	5025	97
7/19/2002	298	2.00	0.09	9.74	0.04	20.32	0.41	5312	5125	96
7/22/2002	299	1.96	0.13	10.23	0.11	19.82	0.08	5259	5005	95
7/23/2002	300	2.10	0.06	10.48	0.25	20.95	0.35	5496	5225	95
7/24/2002	301	2.01	0.05	10.78	0.15	21.71	0.15	5655	5355	95
7/25/2002	302	1.94	0.02	10.79	0.03	21.03	0.23	5496	5230	95
7/26/2002	303	1.86	0.06	10.52	0.13	20.09	0.52	5220	5035	96
7/29/2002	304	2.02	0.05	10.57	0.07	19.64	0.31	5343	5285	99
7/30/2002	305	2.10	0.04	10.55	0.06	18.83	0.08	5241	5210	99
7/31/2002	306	1.98	0.01	9.69	0.28	19.90	0.06	5233	5160	99
8/1/2002	307	1.99	0.04	9.96	0.14	20.59	0.25	5339	5235	98
8/2/2002	308	2.01	0.02	9.46	0.42	20.07	0.10	5332	5235	98
8/5/2002	309	1.94	0.04	9.50	0.08	20.50	0.09	5108	4890	96
8/6/2002	310	2.00	0.09	10.08	0.09	21.09	0.13	5346	5165	97
8/7/2002	311	1.94	0.05	9.91	0.31	19.81	0.54	5070	4895	97
8/8/2002	312	1.94	0.03	9.56	0.07	21.65	0.07	5309	5100	96
8/9/2002	313	2.15	0.02	10.23	0.08	21.24	0.08	5317	5090	96
8/12/2002	314	2.07	0.03	9.69	0.02	18.53	0.25	5236	5620	107
8/13/2002	315	1.96	0.07	10.12	0.21	20.87	0.23	5484	5315	97
8/14/2002	316	2.11	0.09	9.78	0.10	19.28	0.72	5143	5620	109
8/15/2002	317	2.09	0.05	10.43	0.36	21.10	0.55	5609	5525	99
8/16/2002	318	2.04	0.04	9.51	0.45	20.70	0.41	5285	5095	96
8/19/2002	319	1.95	0.04	10.44	0.10	21.05	0.05	5281	4930	93
8/20/2002	320	2.02	0.06	9.88	0.04	21.55	0.06	5254	4960	94
8/21/2002	321	1.99	0.06	10.51	0.13	20.57	0.16	5218	4940	95
8/22/2002	322	2.10	0.04	10.50	0.05	21.17	0.35	5357	5040	94
8/23/2002	323	2.01	0.05	10.32	0.04	21.02	0.04	5280	5020	95
8/26/2002	324	1.92	0.01	10.26	0.04	21.14	0.08	5377	5020	93
8/27/2002	325	2.09	0.04	9.92	0.15	21.05	0.27	5339	5140	96
8/28/2002	326	2.07	0.04	10.56	0.06	21.20	0.04	5464	5110	94
8/29/2002	327	2.13	0.03	10.10	0.08	20.49	0.07	5290	4990	94
8/30/2002	328	2.01	0.01	10.62	0.03	21.18	0.09	5524	5170	94
9/2/2002	329	1.95	0.07	10.03	0.37	20.49	0.64	5037	4850	96
9/3/2002	330	2.07	0.03	10.21	0.14	19.20	0.12	5018	4915	98

## GMVC Daily Exposure Concentrations and Nominal Usage

Date	Exposure Day	Chamber 6 (2g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20g/m <sup>3</sup> )		Nominal Usage (Mass Balance)		
		Conc.	Stdev	Conc.	Stdev	Conc.	Stdev	Anticipated Usage (g)	Actual Usage (g)	% Usage (Actual / Anticipated)
9/4/2002	331	2.00	0.01	9.44	0.09	20.54	0.03	5065	5215	103
9/5/2002	332	1.98	0.02	9.69	0.05	19.41	0.08	5007	5080	101
9/6/2002	333	2.03	0.03	10.24	0.04	21.28	0.38	5388	5135	95
9/9/2002	334	1.94	0.02	10.56	0.02	20.72	0.11	5377	5245	98
9/10/2002	335	1.99	0.01	9.96	0.08	21.38	0.17	5397	4990	92
9/11/2002	336	1.87	0.08	10.40	0.01	21.27	0.26	5438	5145	95
9/12/2002	337	2.00	0.03	10.08	0.04	19.89	0.20	5176	4835	93
9/13/2002	338	2.12	0.05	10.00	0.06	21.53	0.12	5462	5115	94
9/16/2002	339	1.96	0.02	10.15	0.03	21.28	0.03	5428	5160	95
9/17/2002	340	2.07	0.12	9.34	0.07	20.08	1.01	5242	4985	95
9/18/2002	341	2.07	0.02	9.83	0.13	19.26	0.12	5491	5290	96
9/19/2002	342	1.93	0.02	9.43	0.03	19.32	0.12	5328	5285	99
9/20/2002	343	1.96	0.07	9.78	0.02	19.44	0.06	5310	5260	99
9/23/2002	344	1.91	0.01	9.33	0.02	20.15	0.21	5466	5280	97
9/24/2002	345	1.90	0.02	9.70	0.16	19.63	0.05	5426	5230	96
9/25/2002	346	2.03	0.09	9.61	0.14	19.92	0.08	5505	5250	95
9/26/2002	347	2.01	0.05	9.92	0.04	19.43	0.18	5472	5305	97
9/27/2002	348	2.09	0.07	9.72	0.06	19.56	0.55	5516	5375	97
9/30/2002	349	2.02	0.01	9.43	0.03	20.09	0.05	5398	5330	99
10/1/2002	350	1.89	0.03	10.09	0.05	19.61	0.24	5410	5410	100
10/2/2002	351	1.94	0.03	9.98	0.02	20.09	0.02	5487	5420	99
10/3/2002	352	1.94	0.02	9.96	0.03	20.16	0.03	5505	5445	99
10/4/2002	353	2.03	0.01	9.87	0.12	19.72	0.22	5394	5280	98
10/7/2002	354	2.11	0.03	9.74	0.07	19.68	0.06	5405	5285	98
10/8/2002	355	2.10	0.05	10.27	0.10	19.53	0.11	5450	5400	99
10/9/2002	356	2.16	0.02	10.02	0.01	19.86	0.16	5463	5375	98
10/10/2002	357	2.10	0.02	9.73	0.07	18.65	0.19	5146	5140	100
10/11/2002	358	1.90	0.01	9.31	0.05	18.44	0.12	5015	5075	101
10/14/2002	359	2.12	0.04	10.15	0.05	19.58	0.14	5430	5370	99
10/15/2002	360	1.98	0.02	10.18	0.07	19.45	0.04	5429	5415	100
10/16/2002	361	2.03	0.04	9.54	0.31	19.15	0.05	5285	5220	99
10/17/2002	362	2.02	0.02	9.81	0.06	19.96	0.16	5513	5605	102
10/18/2002	363	2.05	0.02	9.53	0.17	20.09	0.09	5419	5455	101
10/21/2002	364	1.99	0.03	9.56	0.04	20.06	0.08	5430	5480	101
10/22/2002	365	1.99	0.09	9.99	0.15	19.69	0.48	5432	5505	101
10/23/2002	366	1.96	0.03	10.13	0.04	20.07	0.16	5487	5550	101
10/24/2002	367	2.16	0.02	10.47	0.04	18.95	0.08	5391	5420	101
10/25/2002	368	2.06	0.03	9.45	0.02	19.62	0.08	5317	5465	103
10/28/2002	369	1.93	0.01	9.93	0.04	19.98	0.03	5449	5670	104
10/29/2002	370	2.07	0.02	9.99	0.06	19.87	0.03	5464	5665	104
10/30/2002	371	2.06	0.07	10.29	0.12	19.77	0.08	5492	5320	97
10/31/2002	372	2.07	0.01	9.88	0.10	20.29	0.05	5503	5670	103
11/1/2002	373	1.99	0.01	9.83	0.14	19.53	0.06	5312	5330	100
11/4/2002	374	2.05	0.01	10.33	0.08	19.74	0.13	5469	5580	102
11/5/2002	375	2.02	0.01	9.78	0.08	19.74	0.07	5355	5480	102
11/6/2002	376	1.98	0.02	9.84	0.03	20.04	0.10	5415	5550	102
11/7/2002	377	1.97	0.03	10.09	0.04	20.11	0.05	5456	5595	103
11/8/2002	378	1.90	0.02	10.23	0.03	19.89	0.05	5429	5725	105
11/11/2002	379	1.95	0.01	9.58	0.02	21.03	0.06	5365	5595	104
11/12/2002	380	2.16	0.01	10.30	0.11	20.23	0.10	5443	5600	103
11/13/2002	381	2.08	0.01	9.45	0.04	21.16	0.04	5364	5565	104
11/14/2002	382	1.96	0.02	10.43	0.02	20.66	0.08	5448	5535	102
11/15/2002	383	2.05	0.02	10.19	0.04	20.46	0.02	5392	5515	102
11/18/2002	384	2.05	0.02	10.49	0.01	20.48	0.06	5528	5565	101
11/19/2002	385	2.06	0.06	10.02	0.03	19.82	0.02	5339	5345	100
11/20/2002	386	1.88	0.02	10.49	0.01	19.99	0.02	5405	5370	99
11/21/2002	387	1.94	0.11	10.22	0.07	20.08	0.09	5385	5365	100
11/22/2002	388	1.88	0.01	9.70	0.08	20.39	0.05	5422	5445	100
11/25/2002	389	2.05	0.03	10.31	0.06	21.10	0.09	5567	5650	101
11/26/2002	390	1.92	0.06	9.91	0.06	20.51	0.10	5389	5370	100
11/27/2002	391	2.00	0.01	10.15	0.09	20.50	0.06	5443	5330	98
11/28/2002	**	Holiday		Holiday		Holiday		Holiday		
11/29/2002	392	2.09	0.01	10.14	0.04	19.44	0.03	5342	5475	102
12/2/2002	393	1.99	0.03	10.04	0.05	20.51	0.03	5487	5510	100
12/3/2002	394	1.92	0.06	10.53	0.17	19.68	0.09	5393	5415	100
12/4/2002	395	1.86	0.02	10.22	0.07	19.56	0.11	5286	5290	100
12/5/2002	396	1.98	0.02	9.44	0.21	19.65	0.06	5182	5170	100

## GMVC Daily Exposure Concentrations and Nominal Usage

Date	Exposure Day	Chamber 6 (2g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20g/m <sup>3</sup> )		Nominal Usage (Mass Balance)		
		Conc.	Stdev	Conc.	Stdev	Conc.	Stdev	Anticipated Usage (g)	Actual Usage (g)	% Usage (Actual / Anticipated)
12/6/2002	397	1.87	0.02	9.68	0.02	20.52	0.08	5377	5310	99
12/9/2002	398	2.10	0.01	9.56	0.35	20.32	0.37	5318	5330	100
12/10/2002	399	1.97	0.07	9.88	0.05	19.44	0.02	5210	5245	101
12/11/2002	400	1.96	0.10	9.65	0.13	20.72	0.14	5388	5460	101
12/12/2002	401	2.04	0.04	9.72	0.20	20.41	0.09	5323	5405	102
12/13/2002	402	1.99	0.07	9.87	0.18	19.76	0.26	5252	5325	101
12/16/2002	403	1.97	0.02	10.03	0.04	19.69	0.36	5323	5390	101
12/17/2002	404	2.14	0.04	9.62	0.12	19.81	0.53	5297	5380	102
12/18/2002	405	2.08	0.03	9.82	0.19	20.13	0.14	5366	5400	101
12/19/2002	406	2.06	0.03	9.69	0.12	19.60	0.13	5280	5195	98
12/20/2002	407	2.12	0.00	10.00	0.07	19.85	0.05	5403	5370	99
12/23/2002	408	1.96	0.09	9.81	0.10	19.54	0.40	5178	5355	103
12/24/2002	409	1.96	0.02	9.76	0.17	19.37	0.16	5171	5265	102
12/25/2002	**	Holiday		Holiday		Holiday		Holiday		
12/26/2002	410	2.01	0.03	9.75	0.06	20.02	0.48	5269	5360	102
12/27/2002	411	1.99	0.07	9.86	0.20	19.68	0.31	5248	5235	100
12/30/2002	412	2.00	0.04	9.57	0.31	19.71	0.48	5266	5120	97
12/31/2002	413	1.99	0.03	9.35	0.16	20.34	0.48	5335	5230	98
1/1/2003	**	Holiday		Holiday		Holiday		Holiday		
1/2/2003	414	2.07	0.04	10.17	0.23	21.00	0.37	5597	5490	98
1/3/2003	415	2.11	0.03	10.22	0.06	19.61	0.21	5335	5335	100
1/6/2003	416	2.04	0.01	9.74	0.14	20.11	0.20	5254	5165	98
1/7/2003	417	2.04	0.08	9.63	0.24	19.97	0.37	5247	5115	97
1/8/2003	418	2.11	0.01	10.40	0.09	20.44	0.05	5464	5325	97
1/9/2003	419	2.14	0.01	10.56	0.03	20.22	0.13	5472	5410	99
1/10/2003	420	2.09	0.03	10.18	0.02	20.46	0.02	5414	5355	99
1/13/2003	421	2.01	0.04	10.46	0.07	19.81	0.50	5318	5140	97
1/14/2003	422	1.96	0.05	10.16	0.33	19.82	0.19	5243	5155	98
1/15/2003	423	2.01	0.06	9.93	0.41	20.14	0.19	5375	5525	103
1/16/2003	424	1.98	0.02	9.97	0.22	19.49	0.42	5223	5415	104
1/17/2003	425	2.03	0.04	9.60	0.25	19.69	0.20	5196	5560	107
1/20/2003	426	2.10	0.04	9.61	0.08	20.23	0.10	5282	5750	109
1/21/2003	427	2.00	0.01	9.82	0.09	19.80	0.06	5231	5590	107
1/22/2003	428	2.02	0.06	9.70	0.17	19.23	0.58	5126	5405	105
1/23/2003	429	1.98	0.06	9.59	0.29	19.82	0.47	5195	5665	109
1/24/2003	430	1.99	0.04	10.36	0.13	19.20	0.08	5175	5535	107
1/27/2003	431	2.07	0.06	10.31	0.45	20.07	0.32	5345	5420	101
1/28/2003	432	1.91	0.03	9.70	0.05	20.51	0.06	5287	5430	103
1/29/2003	433	2.11	0.04	10.23	0.01	20.05	0.06	5330	5460	102
1/30/2003	434	1.89	0.03	10.47	0.04	20.58	0.07	5418	5550	102
1/31/2003	435	2.04	0.08	9.76	0.05	19.34	0.55	5152	5250	102
2/3/2003	436	2.05	0.05	9.95	0.19	19.99	0.14	5260	5470	104
2/4/2003	437	2.09	0.10	9.91	0.18	19.23	0.49	5128	5395	105
2/5/2003	438	2.06	0.04	9.90	0.47	19.33	0.37	5139	5430	106
2/6/2003	439	1.97	0.07	9.52	0.25	19.88	0.13	5137	5415	105
2/7/2003	440	2.10	0.07	9.58	0.14	20.39	0.07	5277	5530	105
2/10/2003	441	2.00	0.02	9.90	0.07	21.20	0.01	5425	5620	104
2/11/2003	442	1.90	0.05	10.30	0.07	20.68	0.08	5478	5650	103
2/12/2003	443	1.97	0.06	9.71	0.17	19.79	0.36	5231	5400	103
2/13/2003	444	1.99	0.01	10.12	0.02	19.34	0.22	5217	5360	103
2/14/2003	445	2.01	0.02	9.80	0.06	20.36	0.02	5423	5655	104
2/17/2003	446	2.05	0.02	9.62	0.08	18.88	0.04	5173	5450	105
2/18/2003	447	1.90	0.08	9.91	0.10	19.23	0.11	5269	5515	105
2/19/2003	448	2.05	0.14	9.79	0.17	18.94	0.39	5253	5450	104
2/20/2003	449	1.88	0.03	10.28	0.14	19.36	0.08	5376	5605	104
2/21/2003	450	2.05	0.05	9.68	0.22	20.54	0.20	5274	5420	103
2/24/2003	451	2.08	0.02	10.26	0.03	19.70	0.11	5159	5475	106
2/25/2003	452	1.99	0.07	9.61	0.24	19.48	0.35	5121	5395	105
2/26/2003	453	1.94	0.06	9.77	0.29	19.69	0.28	5179	5390	104
2/27/2003	454	1.94	0.03	9.90	0.29	19.91	0.21	5242	5435	104
2/28/2003	455	2.00	0.03	9.49	0.06	20.42	0.04	5294	5585	105
3/3/2002	456	1.96	0.02	9.56	0.26	20.10	0.18	5190	5440	105
3/4/2002	457	2.04	0.01	10.02	0.16	20.59	0.14	5352	5520	103
3/5/2002	458	1.99	0.04	9.80	0.20	19.94	0.27	5205	5405	104
3/6/2002	459	2.00	0.04	9.79	0.02	20.80	0.02	5317	5525	104
3/7/2002	460	1.94	0.04	10.66	0.29	21.64	0.25	5598	5730	102
3/10/2003	461	2.09	0.03	9.62	0.16	19.53	0.06	5205	5335	102

## GMVC Daily Exposure Concentrations and Nominal Usage

Date	Exposure Day	Chamber 6 (2g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20g/m <sup>3</sup> )		Nominal Usage (Mass Balance)		
		Conc.	Stdev	Conc.	Stdev	Conc.	Stdev	Anticipated Usage (g)	Actual Usage (g)	% Usage (Actual / Anticipated)
3/11/2003	462	1.99	0.08	9.48	0.16	20.22	0.15	5280	5380	102
3/12/2003	463	1.93	0.08	9.63	0.23	19.63	0.43	5208	5320	102
3/13/2003	464	2.06	0.01	9.60	0.15	19.60	0.40	5210	5310	102
3/14/2003	465	1.99	0.04	9.56	0.10	19.62	0.39	5168	5285	102
3/17/2003	466	1.96	0.02	9.60	0.12	19.93	0.07	5315	5610	106
3/18/2003	467	2.07	0.03	9.98	0.13	20.37	0.19	5339	5600	105
3/19/2003	468	1.97	0.03	9.56	0.20	20.15	0.15	5232	5420	104
3/20/2003	469	1.97	0.06	9.38	0.08	20.99	0.08	5340	5490	103
3/21/2003	470	2.05	0.03	9.76	0.18	20.04	0.15	5229	5525	106
3/24/2003	471	1.97	0.03	10.31	0.41	20.26	0.17	5276	5395	102
3/25/2003	472	2.02	0.04	9.91	0.18	20.48	0.13	5267	5320	101
3/26/2003	473	2.00	0.06	10.27	0.22	20.13	0.27	5242	5160	98
3/27/2003	474	1.95	0.03	10.01	0.13	19.74	0.58	5278	5210	99
3/28/2003	475	1.98	0.01	9.78	0.29	20.05	0.10	5308	5190	98
3/31/2003	476	2.03	0.06	9.82	0.24	19.20	0.27	5138	5250	102
4/1/2003	477	1.97	0.07	9.67	0.30	19.97	0.40	5236	5420	104
4/2/2003	478	2.05	0.08	9.76	0.29	19.62	0.15	5165	5230	101
4/3/2003	479	2.00	0.15	9.69	0.23	19.78	0.19	5221	5420	104
4/4/2003	480	1.97	0.02	9.72	0.10	19.50	0.06	5137	5310	103
4/7/2003	481	1.97	0.05	9.71	0.20	21.04	0.06	5391	5510	102
4/8/2003	482	1.97	0.09	10.09	0.09	19.69	0.34	5230	5330	102
4/9/2003	483	2.01	0.02	10.42	0.06	20.19	0.06	5491	5555	101
4/10/2003	484	1.97	0.07	9.81	0.19	19.90	0.28	5218	5370	103
4/11/2003	485	2.06	0.04	9.90	0.06	20.57	0.06	5393	5515	102
4/14/2003	486	2.13	0.03	10.29	0.02	20.29	0.22	5454	5755	106
4/15/2003	487	2.12	0.01	9.95	0.24	19.43	0.34	5263	5474	104
4/16/2003	488	2.02	0.03	10.05	0.09	20.60	0.05	5452	5465	100
4/17/2003	489	1.95	0.01	10.07	0.26	20.68	0.21	5455	5530	101
4/18/2003	490	2.08	0.01	10.13	0.17	19.87	0.36	5326	5325	100
4/21/2003	491	2.06	0.04	10.10	0.13	19.85	0.45	5285	5325	101
4/22/2003	492	1.97	0.02	10.06	0.04	19.98	0.38	5283	5345	101
4/23/2003	493	1.99	0.03	9.80	0.04	20.16	0.30	5287	5410	102
4/24/2003	494	1.96	0.07	9.87	0.23	19.73	0.28	5216	5090	98
4/25/2003	495	2.05	0.06	9.73	0.14	19.94	0.27	5249	5085	97
4/28/2003	496	2.02	0.02	9.56	0.66	19.53	1.05	5107	4930	97
4/29/2003	497	2.03	0.02	9.97	0.13	20.10	0.06	5271	5370	102
4/30/2003	498	2.01	0.10	10.27	0.30	19.87	0.33	5277	5175	98
5/1/2003	499	2.01	0.03	9.81	0.12	19.93	0.17	5213	5090	98
5/2/2003	500	2.03	0.01	9.69	0.12	20.36	0.11	5293	5135	97
5/5/2003	501	2.13	0.04	10.16	0.05	20.55	0.34	5408	5230	97
5/6/2003	502	1.99	0.03	10.38	0.27	19.53	0.19	5230	5270	101
5/7/2003	503	2.00	0.06	9.88	0.16	19.72	0.34	5188	5125	99
5/8/2003	504	2.03	0.04	9.97	0.04	20.16	0.07	5288	5140	97
5/9/2003	505	2.06	0.02	9.91	0.10	19.97	0.06	5254	5105	97
5/12/2003	506	1.99	0.11	9.77	0.11	19.59	0.11	5154	4965	96
5/13/2003	507	2.08	0.03	9.84	0.05	20.01	0.04	5246	5030	96
5/14/2003	508	2.02	0.07	9.74	0.04	19.77	0.06	5185	5325	103
5/15/2003	509	2.01	0.02	9.52	0.50	19.30	0.48	5075	5280	104
5/16/2003	510	2.09	0.03	10.04	0.15	19.94	0.52	5271	5465	104
5/19/2003	511	2.08	0.03	10.11	0.08	20.48	0.21	5251	5500	105
5/20/2003	512	2.13	0.01	9.80	0.30	20.74	0.17	5248	5365	102
5/21/2003	513	2.09	0.01	9.75	0.28	20.02	0.17	5203	5365	103
5/22/2003	514	2.05	0.01	10.09	0.59	20.56	0.78	5331	5525	104
5/23/2003	515	2.04	0.03	10.07	0.52	20.81	0.24	5380	5605	104
5/26/2003	516	2.01	0.05	10.07	0.09	19.84	0.13	5155	5295	103
5/27/2003	517	1.99	0.03	10.08	0.12	20.54	0.40	5265	5465	104
5/28/2003	518	2.06	0.04	9.89	0.23	20.35	0.13	5241	5445	104
5/29/2003	519	2.02	0.01	9.91	0.15	19.93	0.34	5312	5555	105
5/30/2003	520	1.94	0.03	9.85	0.42	19.90	0.15	5286	5515	104

Average	2.02	10.00	20.29	5413	5359	99
STDEV	0.07	0.37	0.74	211	234	4
% Target	100.82	99.98	101.45			

\*11/28/01 (Exposure Day 134). Did not expose for a full day because of fluctuations in the chamber supply air. We exposed for approximately 40 minutes at average concentrations of 1.53 g/m<sup>3</sup>, 7.88 g/m<sup>3</sup>, and 13.62 g/m<sup>3</sup>. The supply air system was repaired and normal exposures were conducted the following day.

E-6 Summary of GMVC Room Air Sampling Results

## Summary of GMVC Room Air Sampling Results

Date	Exposure Day	Measured Room Air Conc. (g/m <sup>3</sup> )	Stdev.	Sample Time (min)
9/13/2001	81	0.02	0.01	20
11/13/2001	124	0.5	0.02	13
11/14/2001	125	0.31	0.01	21
2/5/2002	181	-0.2	0.04	18
4/29/2002	240	0.14	0.02	30
7/22/2002	299	0.06	0.01	30
10/14/2002	359	0.11	0.06	20
1/2/2003	414	-0.06	0.02	20
5/28/2003	518	0.07	0.01	20

\* Samples taken using the Low Miran during last part of exposure day

E-7 Aerosol Scientist's Report

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

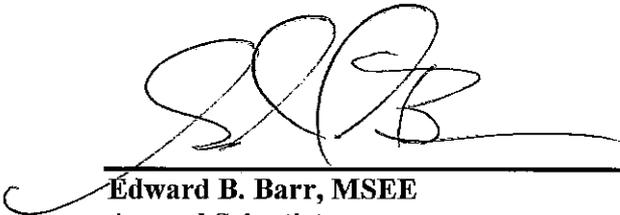
**Study Number FY01-013**

**Study Title: 211(b) Chronic Carcinogenicity Study Gasoline MTBE Vapor Condensate  
(GMVC)**

**LRRI Protocol Number: FY01-013**

**Appendix E-7**

**AEROSOL SCIENTIST'S REPORT**



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**Edward B. Barr, MSEE**  
**Aerosol Scientist**

*12 May 10*  
**Date**

## **METHOD**

### Test Substance Identification, Source, and Storage

Gasoline MTBE Vapor Condensate (GMVC; Lot Number API 00-02) was prepared and supplied in 420-pound and 20-pound gas cylinders by Chevron Research and Technology Center (CRTC; Richmond, CA). Original characterization of the test substance was performed by CRTC. The reference gas chromatographic profile of the 19 key components was provided by ExxonMobil Biomedical Sciences, Inc. (EMBSI), Annandale, NJ. Twenty-pound cylinders and some 420-pound cylinders were stored at ambient temperature in a storage building dedicated for that purpose at the Lovelace Respiratory Research Institute (LRRI). The remaining 420-pound cylinders were stored in an outside, controlled area at ambient temperature. The test substance was transferred, as needed, from the 420-pound to the 20-pound cylinders. Only authorized personnel were allowed access to the test substance. Receipt, use, and inventory of this test substance were documented.

Analysis. Before dispensing GMVC from each 420 pound tank, a liquid sample was transferred from the 420-pound tank to a small glass vial with a crimp top. A 50  $\mu$ L sample of liquid was injected into a Tedlar bag for gas chromatographic analysis at LRRI. The analytical method is described under Section “Qualitative Analysis of the Hydrocarbon Composition of the Test Substance and Exposure Atmosphere by Gas Chromatography.”

Reserve Sample. The Sponsor-contracted archives have retained samples of the test substance.

### Exposure System

The exposure system consisted of four level [low, mid, and high target concentration levels and control (air only)] H-2000 whole-body chambers [Lab Products, Inc., Seaford, DE], the vapor generation system, and the on-line gas analysis system [Miran infrared spectrometers]. Figure E-1 is a schematic representation of a typical H-2000 chamber in the exposure system.

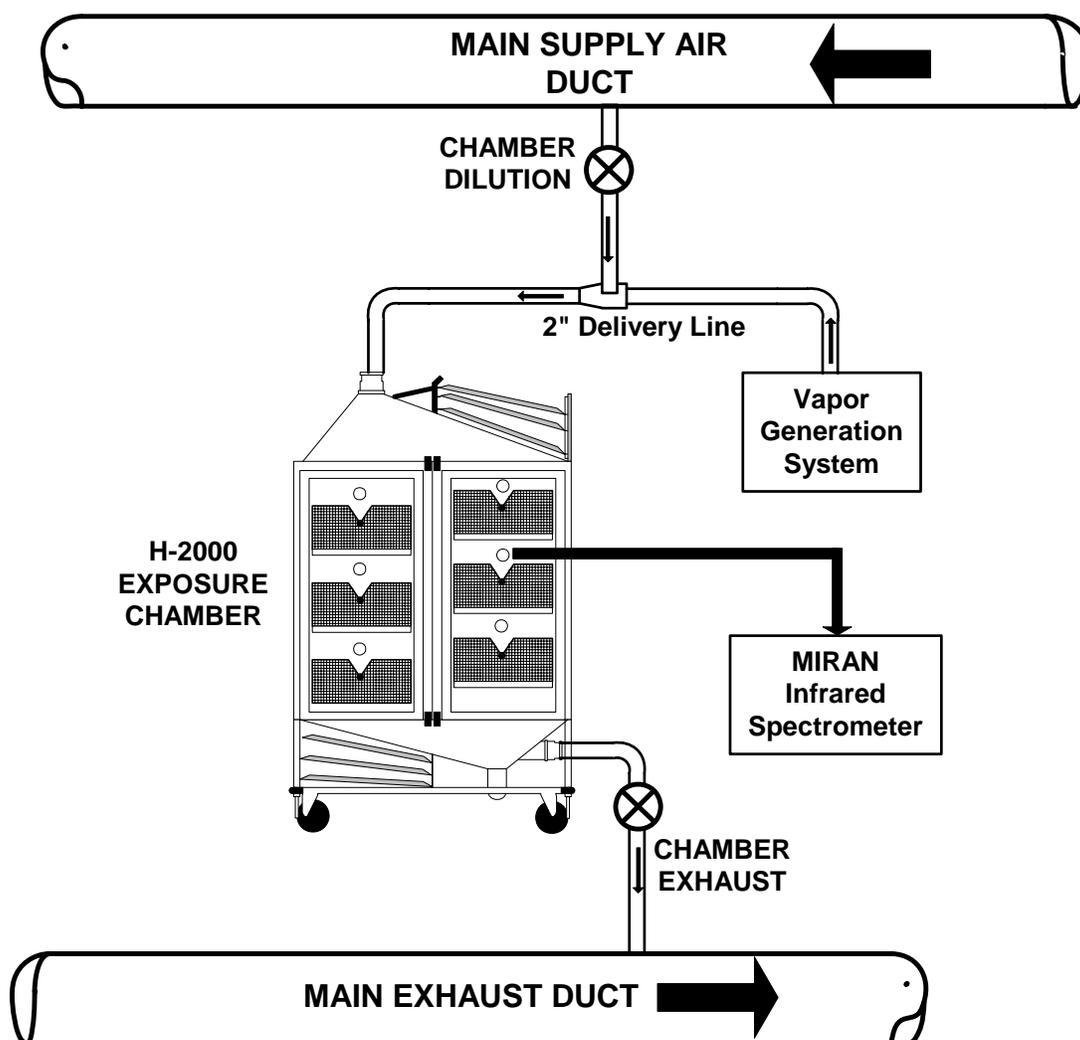


Figure E-1. Gasoline MTBE Vapor Exposure System

Figure E-2 shows the layout of the four chamber system in room 408 and the adjacent room housing the Miran 1A infrared spectrometers and other equipment. The chamber system was housed in a separate room for safety requirements. Room 408 was modified to meet National Fire Protection Association (NFPA) requirements for class I liquids. Electrical equipment was excluded from use in room 408, so the Miran 1A infrared spectrometers used for analyzing the chamber atmospheres and other electrical equipment were operated in a separate room.

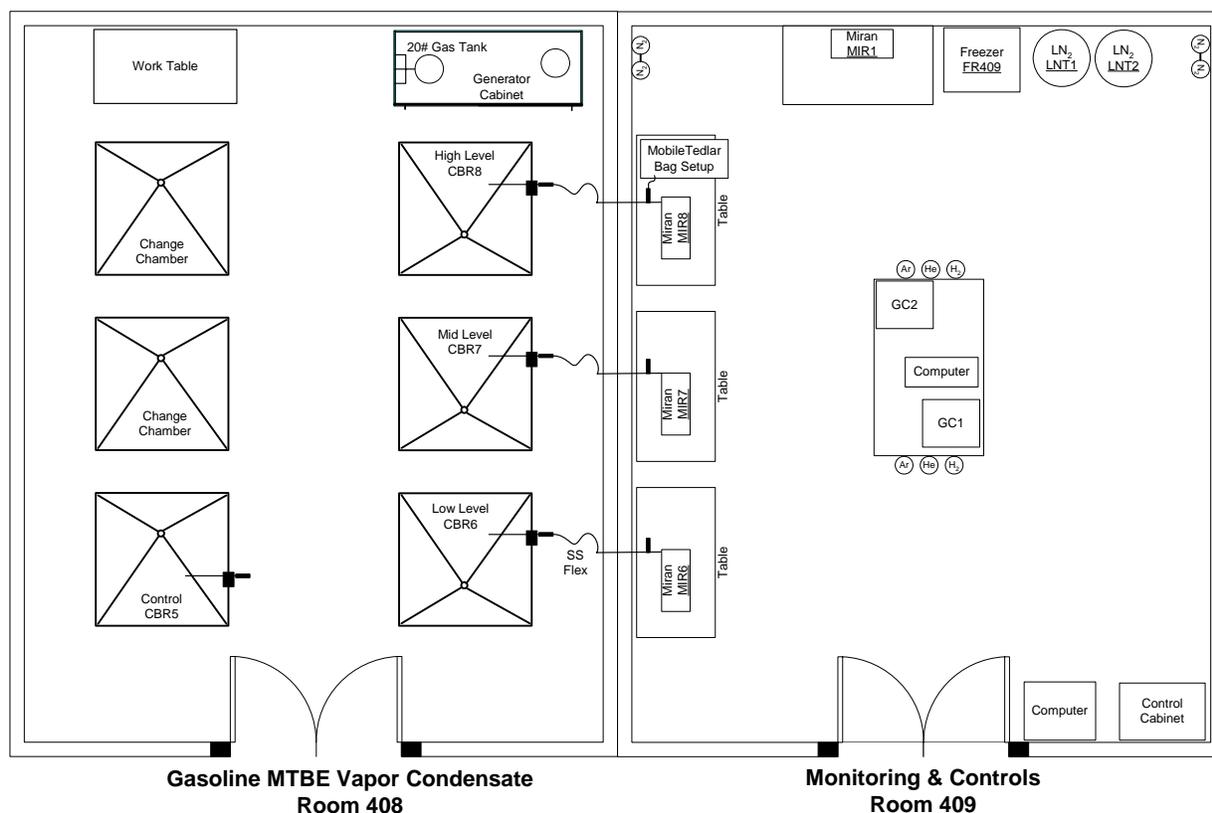


Figure E-2. Gasoline Vapor Condensate Exposure System Room Layout

H-2000 Whole-Body Chambers. The rats were housed 24 hours per day during quarantine and exposure in the H-2000 whole-body inhalation chambers (Figure E-1). Rats were exposed 6 hours/day (plus 14 minutes, the time for the vapor concentration to reach T90), 5 days/week for 104 weeks (520 exposure days). Initially, all rats were housed separately in 3.8-inch wide by 11-inch long by 8-inch high compartments within stainless steel baskets. When male rats reached 400 g they were transferred to baskets with 5.7-inch by 11-inch by 8-inch compartments. Each chamber contained six baskets.

The chambers and cage racks were washed weekly. The cage racks were rotated clockwise weekly when the rats were transferred from the dirty to the clean chamber.

The chambers were held at approximately 1 inch of water negative pressure with respect to the exposure room, and the chamber flow rates were maintained at 12 to 15 air changes per hour (400–500 liters per minute [LPM]). Chamber temperatures were maintained at 20° to 24°C. Temperature, relative humidity, and chamber air flow rates were continuously monitored 24

hours per day. Values for the three parameters were recorded at 30-minute intervals by a computer-based monitoring system. Oxygen concentration in the chambers was maintained at 19%. This parameter was checked daily but not recorded.

A 12-hour light cycle was maintained with lights on at 0600. Light levels in the exposure room and noise levels in the chambers were determined periodically.

Vapor Generation System. A schematic of the vapor generation system is shown in Figure E-3. The daily supply of GMVC for each exposure chamber was contained in 20-pound gas storage cylinders. Exposure atmospheres were generated by controlling the flow of pressurized GMVC through a rotameter, into a heated stainless steel transfer line where the GMVC was completely vaporized. Chamber concentrations were controlled by adjusting the flow rates of the GMVC and dilution air rate. Chamber exhaust was carried to a thermal oxidizer on the roof of the exposure facility where it was burned.

On-line Gas Analysis System. Chamber atmospheres were monitored continuously by Miran 1A infrared spectrometers (Foxboro Wilks, Foxboro, CT). The high-, mid-, and low-level exposure chambers were each monitored with their own analyzer. The analyzers for the high-, mid-, and low-level chambers underwent weekly five-point calibrations and daily one-point calibration checks using test substance. A fourth analyzer was devoted to monitoring the control chamber, the room air, and the hood enclosing the 20-pound tank of test substance. This Miran underwent a three-point calibration periodically. The Miran 1A analyzers dedicated to the mid- and high-level chambers were calibrated over a range of 6–35 g/m<sup>3</sup>. The Miran 1A analyzers for the control chamber and the low-level chamber were calibrated over a concentration range of 1–7 g/m<sup>3</sup>.

The absorbance signals, recorded continuously from the first 2 hours, second 2 hours, and third 2 hours, were averaged to provide three concentration values for each chamber each exposure day. The mean of the three values from each exposure chamber was reported as the day's exposure concentration for that chamber.

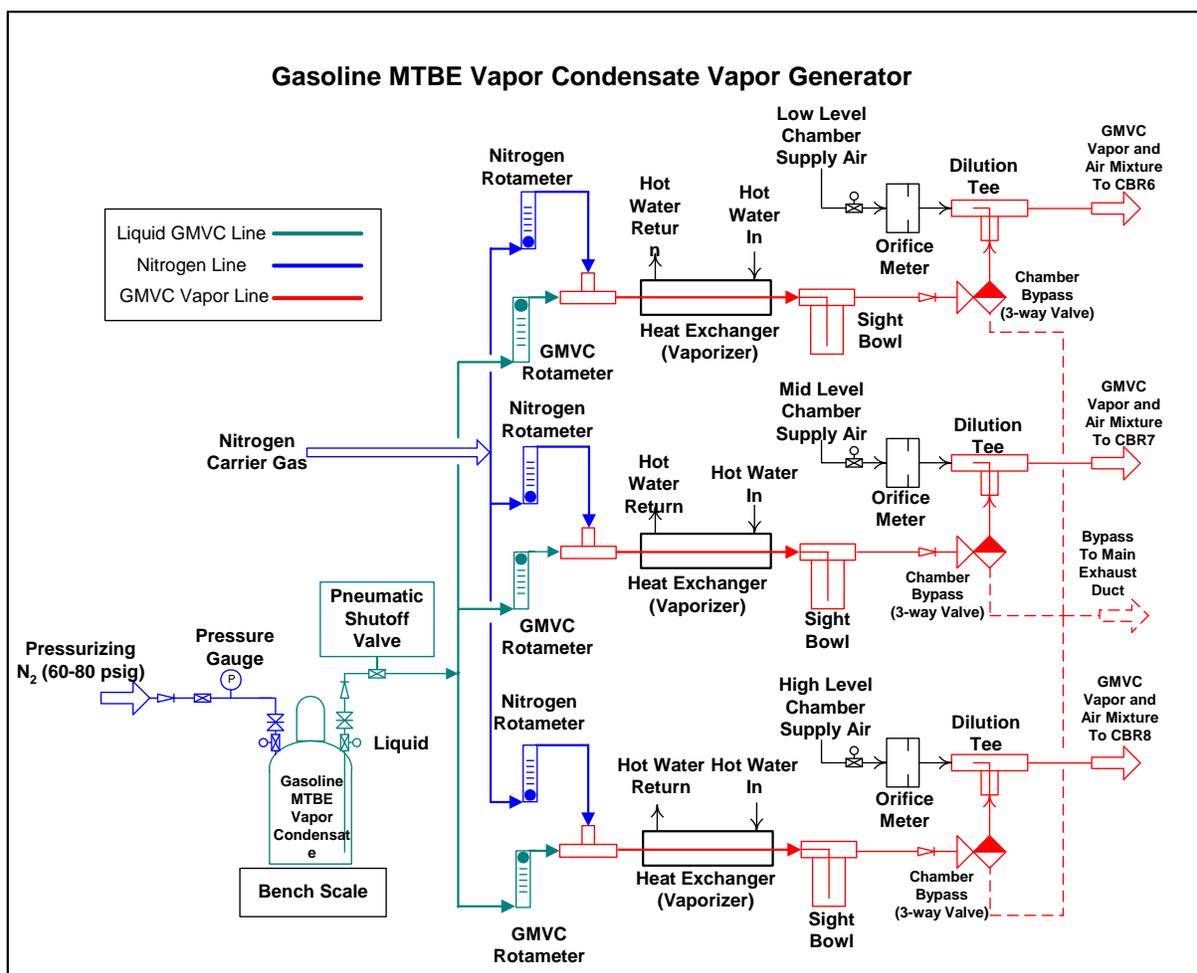


Figure E-3. Vapor Generator for GMVC

Qualitative Assessment of Exposure Atmospheres. The qualitative composition of the exposure atmosphere in each chamber was determined weekly by gas chromatography using a Shimadzu Model GC-17A/FID (Columbia, MD). Exposure atmosphere samples were collected from the chambers into Tedlar sampling bags each week. The atmosphere samples were transferred from the sampling bags directly to the sampling loop of the GC. The percent peak area of each of 19 components was compared to the EMBSI hydrocarbon profile.

Qualitative Analysis of the Hydrocarbon Composition of the Test Substance and Exposure Atmosphere by Gas Chromatography

The hydrocarbon profile of the test substance and the exposure atmosphere was determined using a Shimadzu Model GC-17A/FID (Columbia, MD) equipped with a Petrocol DH150 capillary column (Supelco, 150 m × 0.25 mm ID, 1.0 μm film thickness). The chromatographic method was adapted from that used by EMBSI and is summarized in Table E-1. To validate the system before the exposures began, the retention times and relative peak intensities of 19 standards of the 19 major components in the test substance were determined. Each standard vapor was prepared in the concentration expected in the test substance as determined by EMBSI (see Appendix B) and injected on the GC. These standards and their relative peak intensities as expected in GMVC are listed in Table E-2. The gas chromatographic profile of the 19 major peaks (retention time and relative peak area) was compared with that originally determined for the GMVC by EMBSI and subsequently used as the benchmark for comparison of the profiles obtained on test substance and exposure atmosphere samples.

Two types of performance checks on the gas chromatograph were conducted during the study. Each week during the study, the retention times of eight representative components were determined using a certified mixture containing 760 ppm butane, 2270 ppm isopentane, 160 ppm trans-2-pentene, 430 ppm 2-methylpentane, 220 ppm hexane, 90 ppm 2,4-dimethylpentane, 100 ppm 2-methylhexane, and 220 ppm isooctane in nitrogen (Matheson Tri-Gas, Irving TX). In addition, one-point performance qualifications were performed on each day in which chamber profiles were analyzed. The one-point check was performed using a certified standard of 840 ppm butane in N<sub>2</sub> (Matheson Tri-Gas, Irving, TX).

Table E-1. Gas Chromatograph Operating Conditions for Vapor Condensate Analysis

Analytical Column:	Supelco Petrocol™ DH150 (150 m × 0.25mm) 1.0 μm film thickness
Oven Temperature Program:	
Initial Temp	35°C
Initial Time	96 minutes
Rate 1	5°C/min to 130°C
Rate 2	20°C/min to 200°C
Final Time	15 minutes
Injector:	
Temperature	225°C
Mode	Split
Ratio	111:1
Injection Volume	500 μL (vapor)
Detector:	
Type	Flame Ionizing Detector (FID)
Temperature	225°C
Fuel	Hydrogen @ 30–60 mL/min
Oxidizer	Air @ 300–600 mL/min
Make-up Gas	Helium @ 30 mL/min

Table E-2. The Hydrocarbon Components of GMVC and Their Relative Amounts in BGVC as Determined by Gas Chromatography

Component	Area Percent
Isobutane	2.2
n-Butane	11.1
Isopentane	31.0
n-Pentane	9.1
Trans-2-pentene	2.0
2-Methyl-2-butene	2.9
MtBE	21.3
2,3-Dimethylbutane	0.9
2-Methylpentane	4.5
3-Methylpentane	2.6
n-Hexane	2.1
Methylcyclopentane	1.1
2,4-Dimethylpentane	0.9
Benzene	1.5
2-Methylhexane	1.0
2,3-Dimethylpentane	1.0
3-Methylhexane	1.1
Isooctane	1.2
Toluene	2.5
<b>Totals</b>	<b>100</b>

### Computer Environmental Monitoring System

A general layout of the Computer Environmental Monitoring System (CEMS) is shown in Figure E-4. The system is comprised of a computer, LabVIEW data acquisition software, input/output (I/O) hardware, transducers, and instruments. LabVIEW serves as the interface between the operator and the monitoring system. The computer executes the LabVIEW monitoring program and performs data acquisition, data storage, and directs communications via data acquisition, serial interface, and signal conditioning hardware. LabVIEW (version 6.0, National Instruments Corporation, Austin, TX) is a software program that was used to develop the automation, control, and monitoring application for this study. The LabVIEW application (“Gas Condensate CEMS”) acquires the signals from the exposure system transducers via I/O hardware that converts the transducer signals to voltage measurements. The LabVIEW application then converts the voltage measurements to physical parameters (i.e., temperature, pressure, flow, RH).

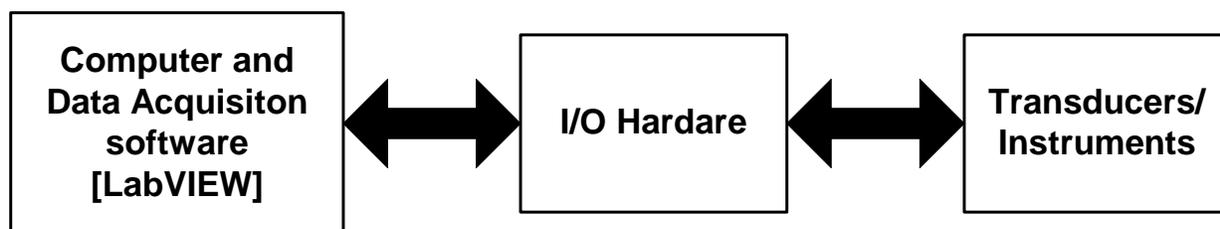


Figure E-4. Computer Environmental Monitoring System

Chamber and room temperatures were measured using calibrated series 400 thermistor probes (Omega Engineering, Stamford, CN), chamber humidities were measured by model 5103VHH calibrated RH sensors (Thermalogic, Hudson, MA), and pressures measured by series PX41 and PX163 calibrated pressure transducers (Omega Engineering, Stamford, CN). Flows were calculated from pressure differential measurements across 2-inch orifice meters. The acquired parameters were summarized by the LabVIEW application in a summary data file each day, and the mean, minimum, maximum, and standard deviation of each environmental parameter is written to the file every 30 minutes. The LabVIEW application also is used to start and stop the exposures and to record average vapor concentrations every 2 hours to a data file.

## RESULTS

### Pre-exposure Characterization

The exposure system was tested prior to animal exposures. Characterization included the following: 1) within-day and between-day consistency of the hydrocarbon profile as determined by gas chromatography; 2) uniformity of the distribution of total vapor within each chamber; 3) determination of the time for vapor concentration to achieve 90% of the equilibrium target value (T90); and 4) the exposure atmosphere in the animals' breathing zone was also examined for the presence of aerosol particles using a TSI Scanning Mobility Particle Sizer (TSI Industries, Shoreview, MN). One time, prior to the initiation of animal exposures, the concentration of the test substance in the generator containment hood and in the exposure room were measured to ensure that the generator containment hood was operating satisfactorily.

Three-Day Stability Evaluation and Nominal GMVC Usage. Before exposures were initiated the system was operated for 6 hours/day for 3 consecutive days to determine system stability. The concentration of vapor in each chamber was close to target and constant within each day, and the concentrations were reproducible from day to day (Table E-3). Gas chromatographic analysis of the chamber atmospheres indicated that the relative percentages of the major components were constant over the 3-day period. The percentages of actual GMVC usage/anticipated usage (nominal usage) on the 3 days of stability testing were 95, 97, and 90 for Days 1, 2, and 3, respectively.

Table E-3. Results of 3-Day Stability Evaluations

Target Exposure Concentration (g/m <sup>3</sup> )/ Chamber number	Achieved Concentration ± SD (n = 3)		
	Day (5/17/01)	Day 2 (5/18/01)	Day 3 (5/19/01)
2 (Chamber 6)	2.06 ± 0.04	1.97 ± 0.10	1.93 ± 0.05
10 (Chamber 7)	9.45 ± 0.23	9.37 ± 0.15	9.37 ± 0.28
20 (Chamber 8)	18.8 ± 0.28	18.9 ± 1.14	19.5 ± 0.37

Homogeneity of Vapor Concentration. The homogeneity of vapor concentration throughout the exposure chambers was determined by conducting a chamber distribution study. The concentrations of GMVC were measured from four sampling ports located in front and four sampling ports located in the back of the chambers during an exposure day and compared to the

concentration obtained in a reference location within the chamber. The spatial variations measured in Chambers 6 ( $2 \text{ g/m}^3$ ), 7 ( $10 \text{ g/m}^3$ ), and 8 ( $20 \text{ g/m}^3$ ) were 3.0%, 1.3%, and 0.8%, respectively. These results indicate the vapor was distributed evenly within each of the chambers.

T90 Determination. The amounts of time required to reach T90 were 13, 14.1, and 14.2 minutes for Chambers 6, 7, and 8, respectively. A T90 of 14 minutes was chosen for use with this study. Daily exposures periods to GMVC were then 6 hours and 14 minutes.

Confirmation of the Absence of Aerosols. The particle concentrations of air inside Chamber 8, operated at a target concentration  $20 \text{ g GMVC/m}^3$ , and the control chamber (Chamber 5) were determined using a TSI Aerodynamic Particle Sizer (model 3321, TSI, Inc., St. Paul, MN). There was less than 1 particle per cubic centimeter air in the control and high-level chambers, indicating that there were no GMVC aerosols at the highest target vapor concentration used in this study.

#### In-Study Data

Test Substance. The composition of the test substance remained acceptably constant throughout the study. Results of gas chromatography analyses of the test substance are provided in Appendix B.

Chamber Distribution Evaluation During Exposures. During the second week of exposures, the uniformity of vapor distribution was re-evaluated to determine the distribution in the presence of the test animals. The spatial variations measured in Chambers 6 (low-level chamber,  $2 \text{ g/m}^3$ ), 7 (mid-level chamber,  $10 \text{ g/m}^3$ ), and 8 (high-level chamber,  $20 \text{ g/m}^3$ ) were 2.8%, 0.86%, and 1.8%, respectively. These results indicated the vapor was distributed evenly within each of the chambers.

Determination of Nominal Concentration. Daily nominal or “anticipated” usage was calculated by multiplying the average GMVC concentration in each chamber (low, mid, high;  $\text{g/m}^3$ ) by the total flow through each respective chamber ( $[\text{L}/\text{min} * \text{min}]/[1000 \text{ L/m}^3]$ ) and then summing the values for all three chambers. This value was compared to the actual GMVC usage determined by taking the difference between the weight of the 20-pound cylinder before and after each exposure.

Concentration of Test Substance in the Exposure Room. Concentration of the test substance in the exposure room was determined periodically during the study (at approximately 60-day intervals) using a Miran 1A Infrared Spectrometer (Foxboro Wilks, Foxboro, CT) operated using the same settings as used to monitor the low-level exposure chamber.

Chamber Concentrations and Nominal Usage. The overall study means of the daily vapor concentrations achieved for the 2, 10, and 20 g GMVC/m<sup>3</sup> vapors are provided in Table E-4. The overall achieved means were within 2% of target for each exposure concentration. Thus, all future references to exposure concentration are in terms of target concentration. For the control chambers, concentrations of “zero” were obtained on all but 15 of the 520 exposure days. On these 15 days, the readings were below the lowest concentration on the standard curve used to calibrate the control chamber Miran 1A (1 g GMVC/m<sup>3</sup>). Daily results are provided in Appendix E-5. Concentrations of GMVC in room air were below the concentration of the lowest standard used to calibrate the Miran 1A (1 g/m<sup>3</sup>; Appendix E-6).

Table E-4. Summary of GMVC Vapor Concentrations<sup>a</sup>

Target g GMVC/m <sup>3</sup>	Achieved Concentrations, g GMVC/m <sup>3</sup>	Percent of Target
0	< 1 <sup>b</sup>	NA
2	2.02 ± 0.07	101
10	10.0 ± 0.37	100
20	20.3 ± 0.74	101

<sup>a</sup>Results are the mean ± SD of vapor concentrations obtained in 520 exposure days.

<sup>b</sup>Concentrations of “zero” were obtained on all but 15 of the 520 exposure days. On these 15 days, the readings were below the lowest concentration on the standard curve used to calibrate the control chamber Miran 1A (1 g GMVC/m<sup>3</sup>).

The overall average of the daily percent nominal usage was 99% ± 4%, indicating excellent agreement between anticipated and actual GMVC usage.

Gas Chromatographic Profiles of GMVC Exposure Atmospheres

Gas chromatographic profiles were obtained from each exposure chamber weekly to assess whether the animals were exposed to the relative amounts of the same 19 major components throughout the study. The peak areas of the 19 major components were summed to

provide a “total peak area” for those components. The peak area of each of the components was divided by the total peak area for the components to obtain a relative peak area (in percent) for each of the components. These were compared to the reference values provided by EMBSI. Profiles remained acceptably constant throughout the study. Results are provided in Appendix F.

Environmental Data

Results of analyses of the chamber environment are provided in Appendix G.

APPENDIX F

WEEKLY GAS CHROMATOGRAPHIC PROFILES OF CHAMBER ATMOSPHERES

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )		Mid (10g/m <sup>3</sup> )		Mid (10g/m <sup>3</sup> )	
		Week Starting 5-23-01	Week Starting 5-28-01	Week Starting 5-23-01	Week Starting 5-28-01	Week Starting 5-23-01	Week Starting 5-28-01
Isobutane	2.2	2.5	2.2	2.2	2.2	2.1	2.3
n-butane	11.1	10.2	9.3	10.2	10.5	10.5	10.9
Isopentane	31.0	26.9	26.6	30.1	30.2	30.7	31.5
n-pentane	9.1	8.7	8.7	8.9	9.0	8.9	9.1
trans-2-pentene	2.0	2.9	2.7	2.1	2.2	2.1	2.1
2-methyl-2-butene	2.9	3.9	3.7	2.9	2.9	2.9	3.1
MTBE/2,3-dimethylbutane							
MTBE	21.3	20.9	20.7	23.0	22.7	22.8	22.9
2,3-dimethylbutane	0.9	0.9	0.9	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.6	5.2	4.6	4.4	4.4	4.5
3-methylpentane	2.6	2.7	3.1	2.4	2.6	2.6	2.6
n-hexane	2.1	2.2	2.5	2.1	2.2	2.2	2.0
Methylcyclopentane	1.1	2.1	1.5	1.2	1.0	1.2	1.1
2,4-dimethylpentane	0.9	2.3	0.9	1.1	1.0	0.9	0.9
Benzene	1.5	1.7	2.5	1.6	1.5	1.5	1.2
2-methylhexane	1.0	1.1	1.2	1.0	1.0	1.1	0.9
2,3-dimethylpentane	1.0	2.4	1.7	1.2	1.2	1.2	1.1
3-methylhexane	1.1	1.3	2.1	1.3	1.2	1.2	0.9
Isocotane	1.2	0.7	1.9	1.3	1.4	1.5	1.2
Toluene	2.5	2.0	2.5	1.8	1.7	1.3	0.8

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )								
	Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting				
	6-4-01	6-11-01	6-18-01	6-25-01	6-4-01	6-11-01	6-18-01	6-25-01	6-4-01	6-11-01	6-18-01	6-25-01	6-4-01	6-11-01	6-18-01	6-25-01	6-4-01	6-11-01	6-18-01	6-25-01	
Target	2.2	2.6	2.2	2.3	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1
Isobutane	2.2	2.6	2.2	2.3	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1
n-butane	11.1	8.8	9.1	9.6	9.8	10.2	10.4	10.5	10.3	10.4	10.5	10.3	10.3	10.7	10.5	10.5	10.9	10.7	10.5	10.5	10.5
Isopentane	31.0	24.9	26.0	26.8	26.2	29.9	30.0	30.2	29.8	30.0	30.2	29.8	29.8	31.9	31.1	30.7	31.9	31.1	30.7	30.6	30.6
n-pentane	9.1	7.7	8.5	7.8	8.6	8.8	8.8	8.9	8.9	8.8	8.9	8.9	8.9	9.1	9.1	8.9	9.1	9.1	8.9	8.9	8.9
trans-2-pentene	2.0	3.8	3.0	3.0	3.0	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.2	2.1	2.2	2.0	2.1	2.2	2.0	2.1	2.1
2-methyl-2-butene	2.9	4.0	4.3	3.7	3.6	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
MTBE/2,3-dimethylbutane																					
MTBE	21.3	20.9	21.8	21.0	19.0	22.6	23.4	21.9	22.4	23.4	21.9	22.4	22.4	23.0	22.5	22.3	23.0	22.5	22.3	22.3	22.3
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.8	1.0	1.0	0.9	0.9	1.0	0.9	0.9	0.9	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9
2-methylpentane	4.5	4.3	4.9	4.3	4.9	4.5	4.4	4.6	4.5	4.4	4.6	4.5	4.4	4.4	4.5	4.5	4.4	4.5	4.5	4.4	4.4
3-methylpentane	2.6	2.9	2.9	2.7	2.7	2.5	2.5	2.6	2.7	2.5	2.6	2.7	2.7	2.5	2.5	2.6	2.5	2.5	2.6	2.6	2.6
n-hexane	2.1	2.6	2.3	2.5	3.2	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	1.9	2.1	2.2	1.9	2.1	2.2	2.3	2.3
Methylcyclopentane	1.1	1.8	1.4	1.7	1.7	1.2	1.1	1.2	1.2	1.1	1.2	1.2	1.2	1.0	1.1	1.2	1.0	1.1	1.2	1.2	1.2
2,4-dimethylpentane	0.9	2.0	1.5	1.0	0.9	1.0	1.1	1.0	1.0	1.1	1.0	1.0	1.0	1.1	1.0	0.9	1.1	1.0	0.9	1.0	1.0
Benzene	1.5	2.0	2.2	1.8	2.4	2.0	1.8	1.7	2.0	2.0	1.8	1.7	2.0	1.1	1.5	1.6	1.1	1.5	1.6	1.7	1.7
2-methylhexane	1.0	2.0	1.0	1.4	1.9	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.1	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	2.7	2.2	2.2	2.3	1.3	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.0	1.1	1.1	1.0	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.5	1.8	1.6	1.0	1.1	1.2	1.2	1.1	1.2	1.2	1.1	1.1	1.0	1.1	1.2	1.0	1.1	1.2	1.2	1.2
Isooctane	1.2	1.8	1.9	2.2	1.8	1.4	1.2	1.3	1.4	1.2	1.3	1.4	1.4	1.2	1.2	1.3	1.2	1.2	1.3	1.4	1.4
Toluene	2.5	2.9	2.3	3.6	3.9	2.0	1.6	2.2	2.0	1.6	2.2	2.2	2.0	0.6	1.4	2.0	0.6	1.4	2.0	2.0	2.0

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )												Mid (10g/m <sup>3</sup> )												High (20g/m <sup>3</sup> )											
	Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting							
	7-2-01	7-9-01	7-16-01	7-23-01	7-30-01	7-2-01	7-9-01	7-16-01	7-23-01	7-30-01	7-2-01	7-9-01	7-16-01	7-23-01	7-30-01	7-2-01	7-9-01	7-16-01	7-23-01	7-30-01	7-2-01	7-9-01	7-16-01	7-23-01	7-30-01	7-2-01	7-9-01	7-16-01	7-23-01	7-30-01						
Isobutane	2.2	2.7	2.0	2.8	2.4	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.8				
n-butane	11.1	8.8	8.1	10.0	10.1	10.0	10.4	10.4	10.2	10.2	10.0	10.4	10.4	10.2	10.3	10.3	10.3	10.6	10.6	10.6	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	8.8				
Isopentane	31.0	25.1	22.8	27.9	27.8	30.1	30.5	30.2	30.6	30.1	30.5	30.5	30.2	30.6	30.5	30.5	30.5	30.7	30.7	30.7	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	29.6					
n-pentane	9.1	8.6	7.1	8.8	8.3	8.8	9.0	8.9	8.8	8.8	8.8	9.0	8.9	8.8	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.6					
trans-2-pentene	2.0	3.7	2.8	2.7	2.2	2.1	2.1	2.2	2.0	2.1	2.1	2.1	2.2	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0						
2-methyl-2-butene	2.9	5.7	2.6	4.0	2.9	2.9	2.9	2.8	2.8	2.9	2.9	2.9	2.8	2.8	3.0	2.9	2.9	2.9	2.9	2.9	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.7						
MTBE/2,3-dimethylbutane																																				
MTBE	21.3	19.9	19.7	20.4	22.5	22.7	22.6	22.3	23.9	22.7	22.6	22.6	22.3	23.9	22.6	22.5	22.4	22.4	22.4	22.4	22.6	22.5	22.5	22.4	22.4	22.4	22.4	22.4	22.4	25.3						
2,3-dimethylbutane	0.9	0.8	0.8	0.9	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.1						
2-methylpentane	4.5	4.8	5.4	4.2	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.9						
3-methylpentane	2.6	3.1	2.6	2.2	2.6	2.6	2.6	2.7	2.6	2.6	2.6	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7						
n-hexane	2.1	2.0	2.8	2.3	2.0	2.2	2.1	2.2	2.0	2.2	2.2	2.1	2.2	2.0	2.3	2.5	2.2	2.2	2.2	2.2	2.3	2.5	2.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2						
Methylcyclopentane	1.1	1.9	2.1	1.9	1.3	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1						
2,4-dimethylpentane	0.9	1.2	4.7	1.3	1.4	1.0	0.9	1.1	1.0	1.0	0.9	1.1	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.1							
Benzene	1.5	2.1	1.9	1.8	1.6	1.6	1.9	1.8	1.4	1.6	1.6	1.9	1.8	1.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.3						
2-methylhexane	1.0	1.3	1.2	1.4	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.2							
2,3-dimethylpentane	1.0	2.0	1.3	2.7	1.4	1.3	1.2	1.1	1.4	1.3	1.2	1.2	1.1	1.1	1.2	1.4	1.1	1.1	1.1	1.1	1.2	1.4	1.4	1.1	1.1	1.1	1.1	1.1	1.3							
3-methylhexane	1.1	1.2	4.6	1.0	1.9	1.2	1.2	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.3							
Isooctane	1.2	1.9	5.2	2.0	1.6	1.2	1.3	1.2	1.3	1.2	1.2	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.6							
Toluene	2.5	3.2	2.4	1.8	3.4	2.1	1.4	2.0	1.4	2.1	1.4	1.4	2.0	1.4	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.5							

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )										
		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting						
		8-6-01	8-13-01	8-20-01	8-27-01	8-6-01	8-13-01	8-20-01	8-27-01	8-6-01	8-13-01	8-20-01	8-27-01	8-6-01	8-13-01	8-20-01	8-27-01	8-6-01	8-13-01	8-20-01	8-27-01			
Isobutane	2.2	2.2	2.2	2.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1
n-butane	11.1	9.8	9.0	10.4	10.1	10.3	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.4	10.6	10.6	10.6	10.6	10.6	10.6	10.5	10.6	10.6	10.5
Isopentane	31.0	27.4	26.4	28.6	28.5	30.0	30.1	30.1	30.1	30.1	30.1	30.3	30.4	30.4	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
n-pentane	9.1	8.3	8.4	8.6	8.4	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
trans-2-pentene	2.0	2.3	2.5	2.2	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.7	3.4	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
MTBE/2,3-dimethylbutane																								
MTBE	21.3	22.2	22.3	22.3	22.2	23.3	23.1	23.1	23.1	23.1	23.3	23.1	23.1	23.0	22.9	22.8	22.9	22.9	22.9	22.8	22.9	22.9	22.8	22.9
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.5	5.1	4.4	4.5	4.5	4.5	4.5	4.4	4.4	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
3-methylpentane	2.6	2.9	2.8	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.0
n-hexane	2.1	2.6	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2
Methylcyclopentane	1.1	1.6	1.4	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.1	1.1	1.1	1.3	1.0	1.0	1.0	1.1	1.1	1.0	1.1	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0
Benzene	1.5	1.7	2.0	1.6	1.6	1.6	1.6	1.6	1.8	1.6	1.6	1.8	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.5	1.5
2-methylhexane	1.0	1.4	1.5	1.3	1.3	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.7	1.7	1.6	1.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.5	1.7	1.4	1.3	1.2	1.2	1.2	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Isooctane	1.2	1.6	1.9	1.3	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Toluene	2.5	3.5	3.5	3.1	3.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.1	1.8

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )							
	Target	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting							
	9-3-01	9-10-01	9-17-01	9-24-01	9-3-01	9-10-01	9-17-01	9-24-01	9-3-01	9-10-01	9-17-01	9-24-01	9-3-01	9-10-01	9-17-01	9-24-01	9-3-01	9-10-01	9-17-01	9-24-01
Isobutane	2.2	2.4	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	1.6	2.0	2.0	2.0	1.6	2.0	2.0
n-butane	11.1	10.3	10.1	10.1	10.2	10.4	10.2	10.2	10.2	10.4	10.2	10.2	9.7	7.3	9.9	9.9	9.7	7.3	9.9	9.9
Isopentane	31.0	29.3	28.7	28.7	30.4	31.2	30.1	30.1	30.4	31.2	30.1	30.1	30.4	28.8	30.3	30.3	30.4	28.8	30.3	30.3
n-pentane	9.1	8.6	8.8	8.8	8.7	9.0	8.8	8.8	8.7	9.0	8.8	8.8	8.8	8.6	8.9	8.9	8.8	8.6	8.9	8.9
trans-2-pentene	2.0	2.4	2.9	2.6	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0
2-methyl-2-butene	2.9	3.2	3.1	3.1	2.8	2.9	2.9	2.9	2.8	2.9	2.9	2.9	2.7	2.5	2.9	2.9	2.7	2.5	2.9	2.9
MTBE/2,3-dimethylbutane																				
MTBE	21.3	20.6	22.3	22.3	23.3	23.4	23.4	23.4	23.3	23.4	23.4	23.4	23.9	25.5	23.5	23.5	23.9	25.5	23.5	23.5
2,3-dimethylbutane	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0
2-methylpentane	4.5	4.5	4.4	4.4	4.5	4.6	4.5	4.5	4.5	4.6	4.5	4.5	4.6	5.4	4.6	4.6	4.6	5.4	4.6	4.6
3-methylpentane	2.6	2.6	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	3.2	2.6	2.6	2.7	3.2	2.6	2.6
n-hexane	2.1	2.0	2.7	2.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.1	2.1	2.2	2.6	2.1	2.1
Methylcyclopentane	1.1	1.2	1.2	1.2	1.2	1.0	1.1	1.1	1.2	1.0	1.0	1.1	1.1	1.3	1.1	1.1	1.1	1.3	1.1	1.1
2,4-dimethylpentane	0.9	2.2	1.6	1.6	1.0	0.9	0.9	1.0	1.0	0.9	0.9	1.0	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1
Benzene	1.5	1.2	2.4	2.4	1.8	1.2	1.2	1.5	1.8	1.2	1.2	1.5	1.4	1.2	1.2	1.2	1.4	1.2	1.5	1.5
2-methylhexane	1.0	1.0	1.1	1.1	1.0	0.9	0.9	1.0	1.0	0.9	0.9	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.8	1.3	1.3	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.2	1.8	1.1	1.1	1.2	1.8	1.1	1.1
3-methylhexane	1.1	1.2	1.1	1.1	1.1	1.0	1.0	1.2	1.1	1.0	1.0	1.2	1.2	1.3	1.1	1.1	1.2	1.3	1.1	1.1
Isooctane	1.2	2.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.9	1.3	1.3	1.4	1.9	1.3	1.3
Toluene	2.5	2.1	1.6	1.6	1.8	1.3	1.3	1.8	1.8	1.3	1.3	1.8	1.6	1.9	1.3	1.3	1.6	1.9	1.3	1.3

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )			Mid (10g/m <sup>3</sup> )			High (20g/m <sup>3</sup> )		
	Week Starting 10-01-01	Week Starting 10-08-01	Week Starting 10-15-01	Week Starting 10-01-01	Week Starting 10-08-01	Week Starting 10-15-01	Week Starting 10-01-01	Week Starting 10-08-01	Week Starting 10-15-01
Isobutane	2.3	2.6	2.0	2.1	2.1	2.1	2.0	2.1	2.1
n-butane	9.0	9.7	9.8	10.3	10.2	10.3	10.2	10.4	10.4
Isopentane	26.2	25.9	28.0	28.6	30.3	30.1	30.2	30.5	30.5
n-pentane	8.5	8.2	8.4	8.5	8.8	8.8	9.0	8.9	8.9
trans-2-pentene	2.0	3.3	3.0	1.9	2.0	2.0	2.1	2.0	2.0
2-methyl-2-butene	3.0	3.7	3.5	2.9	3.0	2.8	2.9	2.9	3.0
MTBE/2,3-dimethylbutane	21.3	21.5	22.8	22.8	22.9	23.8	22.8	22.9	23.1
MTBE	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylbutane	4.6	5.3	4.3	4.9	4.5	4.5	4.5	4.5	4.5
2-methylpentane	2.7	2.6	3.2	2.7	2.6	2.5	2.7	2.6	2.5
3-methylpentane	2.6	2.2	2.1	2.2	2.1	2.1	2.2	2.1	2.1
n-hexane	1.4	2.0	1.4	1.3	1.1	1.1	1.2	1.1	1.1
Methylcyclopentane	1.7	1.6	1.1	1.6	0.9	0.9	1.0	0.9	0.9
2,4-dimethylpentane	2.0	1.8	2.1	1.6	1.8	1.8	1.6	1.6	1.6
Benzene	1.0	1.8	1.0	1.3	0.9	1.0	1.1	1.0	1.0
2-methylhexane	2.1	2.1	1.4	1.4	1.1	1.1	1.2	1.1	1.1
2,3-dimethylpentane	2.3	1.5	1.2	1.2	1.1	1.1	1.2	1.1	1.1
3-methylhexane	2.1	1.9	1.4	1.3	1.2	1.2	1.3	1.2	1.2
Isooctane	2.8	2.1	2.4	2.3	2.0	2.1	2.0	2.1	2.0
Toluene	2.5	2.1	2.4	2.3	2.0	2.1	2.0	2.1	2.0

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )							
		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting			
		11-5-01	11-12-01	11-19-01	11-26-01	11-5-01	11-12-01	11-19-01	11-26-01	11-5-01	11-12-01	11-19-01	11-26-01	11-5-01	11-12-01	11-19-01	11-26-01	11-5-01	11-12-01	11-19-01	11-26-01
Isobutane	2.2	2.1	2.3	2.2	2.1	2.1	2.0	2.1	1.8	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0
n-butane	11.1	10.1	9.4	9.7	10.1	10.1	10.3	9.2	10.0	10.0	10.0	10.0	10.4	10.3	10.3	10.1	10.2	10.4	10.3	10.3	10.1
Isopentane	31.0	29.6	25.6	28.0	29.1	30.4	30.3	36.1	30.2	30.2	30.4	30.3	30.6	30.5	30.3	30.3	30.4	30.6	30.5	30.5	30.3
n-pentane	9.1	8.7	8.0	8.5	8.7	8.9	8.9	9.6	8.9	8.9	8.9	8.9	8.9	9.0	8.9	8.9	8.9	8.9	9.0	9.0	8.9
trans-2-pentene	2.0	2.0	3.0	2.3	2.0	2.0	2.0	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.9	3.1	2.9	2.8	2.9	2.9	2.5	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.0
MTBE/2,3-dimethylbutane																					
MTBE	21.3	23.0	21.2	22.4	23.4	23.5	23.1	19.8	23.9	23.9	23.5	23.1	19.8	23.9	22.9	22.8	22.9	22.8	22.9	22.9	23.0
2,3-dimethylbutane	0.9	1.0	0.9	0.9	1.0	1.0	1.0	0.8	1.0	1.0	1.0	1.0	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.6	4.3	4.7	4.5	4.6	4.5	4.1	4.6	4.6	4.6	4.5	4.1	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5
3-methylpentane	2.6	2.6	2.6	2.8	2.6	2.6	2.6	2.3	2.6	2.6	2.6	2.6	2.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
n-hexane	2.1	2.4	2.2	2.3	2.2	2.1	2.1	1.9	2.1	2.1	2.1	2.1	1.9	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Methylcyclopentane	1.1	1.2	1.5	1.3	1.2	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.0	1.6	1.2	1.1	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.9	1.0	1.0	0.9	1.0	0.9	0.9	0.9	0.9
Benzene	1.5	1.7	2.6	2.1	1.7	1.5	1.5	1.9	1.9	1.5	1.5	1.5	1.9	1.9	1.6	1.6	1.6	1.6	1.6	1.6	1.6
2-methylhexane	1.0	1.1	1.9	1.4	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.3	2.0	1.8	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.2	2.7	1.4	1.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Isocotane	1.2	1.5	2.0	1.8	1.5	1.3	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Toluene	2.5	2.0	3.2	2.3	2.2	1.8	2.1	1.8	1.9	1.8	1.8	2.1	1.8	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.1



**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )								
		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting				
		1-7-02	1-14-02	1-21-02	1-28-02	1-7-02	1-14-02	1-21-02	1-28-02	1-7-02	1-14-02	1-21-02	1-28-02	1-7-02	1-14-02	1-21-02	1-28-02	1-7-02	1-14-02	1-21-02	1-28-02	
Isobutane	2.2	2.3	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1
n-butane	11.1	10.1	9.9	10.1	10.4	10.3	10.3	10.3	10.3	10.3	10.3	10.1	10.1	10.4	10.4	10.3	10.3	10.4	10.4	10.3	10.3	10.3
Isopentane	31.0	29.0	28.6	29.1	28.7	30.4	30.3	29.9	30.3	30.3	29.9	30.3	30.3	30.6	30.6	30.5	30.4	30.6	30.6	30.5	30.4	30.4
n-pentane	9.1	8.5	8.8	8.6	8.8	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
trans-2-pentene	2.0	2.1	2.3	1.9	2.5	2.0	2.0	2.2	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
2-methyl-2-butene	2.9	2.8	3.1	2.9	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
MTBE/2,3-dimethylbutane																						
MTBE	21.3	22.0	22.5	23.2	22.6	22.9	23.1	22.9	23.5	23.1	22.9	23.5	23.5	22.7	22.6	22.8	22.7	22.7	22.6	22.8	22.7	22.7
2,3-dimethylbutane	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.5	4.5	4.7	4.6	4.5	4.5	4.6	4.5	4.5	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.6
3-methylpentane	2.6	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
n-hexane	2.1	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Methylcyclopentane	1.1	1.2	1.3	1.2	1.2	1.1	1.1	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2
2,4-dimethylpentane	0.9	1.3	1.4	1.1	1.5	0.9	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.0	1.0
Benzene	1.5	2.0	1.7	1.5	1.6	1.8	1.8	1.9	1.5	1.8	1.9	1.9	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
2-methylhexane	1.0	1.1	1.2	1.2	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	2.1	1.3	1.3	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.3	1.4	1.3	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Isooctane	1.2	1.3	1.5	1.5	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Toluene	2.5	2.4	2.4	2.4	1.8	2.1	2.0	2.1	1.9	2.0	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	2.0

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )							
	Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting			
	2-4-02	2-11-02	2-18-02	2-25-02	2-4-02	2-11-02	2-18-02	2-25-02	2-4-02	2-11-02	2-18-02	2-25-02	2-4-02	2-11-02	2-18-02	2-25-02	2-4-02	2-11-02	2-18-02	2-25-02
Isobutane	2.2	2.1	2.7	2.1	2.1	2.1	2.1	1.8	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.1	2.1
n-butane	11.1	10.6	10.0	9.9	10.3	10.2	10.2	9.3	10.2	10.2	10.2	10.2	10.2	10.2	9.9	10.5	10.2	9.9	10.5	10.5
Isopentane	31.0	29.8	27.4	29.2	30.4	30.3	30.3	29.4	30.4	30.3	30.3	29.4	30.5	30.5	30.7	32.5	30.5	30.5	30.7	32.5
n-pentane	9.1	8.9	8.5	8.6	8.9	8.9	8.9	8.8	8.9	8.9	8.9	8.8	8.9	8.9	8.9	9.3	8.9	8.9	8.9	9.3
trans-2-pentene	2.0	2.2	3.2	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1
2-methyl-2-butene	2.9	3.2	3.3	3.0	2.9	2.9	3.0	2.9	2.9	2.9	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
MTBE/2,3-dimethylbutane																				
MTBE	21.3	21.9	21.2	21.7	23.0	22.7	22.7	23.3	23.0	22.7	22.7	23.3	22.8	22.8	23.2	22.8	22.8	22.8	23.2	22.8
2,3-dimethylbutane	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.6	4.7	4.7	4.5	4.5	4.6	4.7	4.5	4.5	4.6	4.7	4.5	4.5	4.6	4.4	4.5	4.5	4.6	4.4
3-methylpentane	2.6	2.6	2.8	2.9	2.6	2.6	2.6	2.7	2.6	2.6	2.6	2.7	2.6	2.6	2.7	2.5	2.6	2.6	2.7	2.5
n-hexane	2.1	2.2	2.1	2.2	2.1	2.2	2.1	2.3	2.1	2.2	2.1	2.3	2.1	2.1	2.2	1.9	2.1	2.1	2.2	1.9
Methylcyclopentane	1.1	1.2	1.4	1.3	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.0
2,4-dimethylpentane	0.9	0.9	1.2	1.3	0.9	1.0	1.1	1.0	0.9	1.0	1.1	1.0	0.9	0.9	1.0	0.8	0.9	1.0	1.0	0.8
Benzene	1.5	1.7	1.6	1.8	1.6	1.9	1.6	1.8	1.6	1.9	1.6	1.8	1.9	1.9	1.6	1.5	1.9	1.6	1.5	1.5
2-methylhexane	1.0	1.1	1.3	1.2	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.0	0.7	1.0	1.0	1.0	0.7
2,3-dimethylpentane	1.0	1.3	1.3	1.3	1.1	1.1	1.1	1.3	1.1	1.1	1.1	1.3	1.1	1.1	1.1	0.8	1.1	1.1	1.1	0.8
3-methylhexane	1.1	1.2	1.4	1.4	1.1	1.1	1.1	1.3	1.1	1.1	1.1	1.3	1.1	1.1	1.2	0.8	1.1	1.1	1.2	0.8
Isooctane	1.2	1.4	1.6	1.7	1.2	1.2	1.2	1.5	1.2	1.2	1.2	1.5	1.3	1.3	1.3	0.9	1.3	1.3	1.3	0.9
Toluene	2.5	2.2	2.5	2.2	2.1	2.3	2.2	2.6	2.1	2.3	2.2	2.6	2.0	2.1	1.7	1.2	2.0	2.1	1.7	1.2

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )							
		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting			
		3-4-02	3-11-02	3-18-02	3-25-02	3-4-02	3-11-02	3-18-02	3-25-02	3-4-02	3-11-02	3-18-02	3-25-02	3-4-02	3-11-02	3-18-02	3-25-02	3-4-02	3-11-02	3-18-02	3-25-02
Isobutane	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.0	2.1	2.2	2.2	2.0	2.1	2.2	2.2
n-butane	11.1	9.9	10.0	10.8	10.1	10.2	10.3	10.5	10.6	10.2	10.3	10.5	10.6	9.7	10.3	10.5	10.7	9.7	10.3	10.5	10.7
Isopentane	31.0	28.3	29.1	29.4	30.4	30.3	30.4	30.6	30.6	30.3	30.4	30.6	30.6	30.4	30.4	30.6	30.8	30.4	30.4	30.6	30.8
n-pentane	9.1	8.7	8.7	8.7	9.4	8.9	8.9	9.0	9.0	8.9	8.9	9.0	9.0	8.9	9.1	8.9	9.0	8.9	9.1	8.9	9.0
trans-2-pentene	2.0	2.3	2.0	2.3	3.1	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	3.0	2.9	3.0	3.0	2.9	3.0	2.9	2.9	2.9	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
MTBE/2,3-dimethylbutane																					
MTBE	21.3	21.2	21.8	20.7	20.7	22.8	22.8	22.7	22.4	22.8	22.8	22.7	22.4	23.3	22.4	22.4	22.2	23.3	22.4	22.4	22.2
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0	1.0	1.0	0.9	1.0	0.9	0.9	0.9	1.0	0.9	0.9	0.9
2-methylpentane	4.5	4.4	4.6	4.5	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.7	4.5	4.5	4.5	4.7	4.5	4.5	4.5
3-methylpentane	2.6	2.5	2.7	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6	2.6	2.7	2.6	2.6	2.6
n-hexane	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1
Methylcyclopentane	1.1	1.3	1.6	1.3	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.1	1.3	1.7	1.1	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.9	1.0	0.9	0.9	0.9
Benzene	1.5	1.8	1.9	1.7	1.6	1.6	1.6	1.5	1.5	1.6	1.6	1.5	1.5	1.5	2.0	2.0	1.6	1.5	2.0	1.6	1.6
2-methylhexane	1.0	1.2	1.1	1.3	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.2	1.3	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1
3-methylhexane	1.1	4.6	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1
Isooctane	1.2	1.4	1.5	1.8	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2
Toluene	2.5	2.2	2.6	2.5	2.1	2.2	2.2	2.0	2.0	2.2	2.2	2.0	2.0	1.9	2.3	2.0	2.0	1.9	2.3	2.0	2.0

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )								
	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting			
	4-1-02	4-8-02	4-15-02	4-22-02	4-29-02	4-1-02	4-8-02	4-15-02	4-22-02	4-29-02	4-1-02	4-8-02	4-15-02	4-22-02	4-29-02	4-1-02	4-8-02	4-15-02	4-22-02	4-29-02	
Isobutane	2.2	2.3	2.2	2.3	2.3	2.1	2.2	2.1	2.2	2.2	2.0	2.1	2.2	2.2	2.0	2.1	2.2	2.2	2.2	2.2	2.2
n-butane	11.1	10.4	10.7	10.6	10.6	10.4	10.7	10.3	10.4	10.6	9.8	10.1	10.6	10.6	9.8	10.1	10.6	10.6	10.6	10.7	10.7
Isopentane	31.0	29.7	30.0	29.8	29.8	30.6	30.5	30.6	30.4	30.3	30.3	30.6	30.6	30.5	30.3	30.6	30.6	30.6	30.5	30.6	30.6
n-pentane	9.1	8.8	8.9	8.7	8.9	8.9	8.9	8.9	8.9	9.0	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
trans-2-pentene	2.0	2.0	2.2	2.6	2.2	1.9	2.0	2.1	2.1	2.1	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.9	3.1	3.0	2.9	2.9	2.9	2.9	2.8	2.9	2.8	2.9	2.8	2.9	2.8	2.9	3.0	3.0	3.0	3.0	3.0
MTBE/2,3-dimethylbutane																					
MTBE	21.3	22.3	21.0	21.5	21.1	22.7	22.4	22.8	22.7	22.3	23.1	22.9	22.4	22.4	23.1	22.9	22.4	22.4	22.4	22.3	22.3
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0	0.9	1.0	1.0	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.9
2-methylpentane	4.5	4.4	4.4	4.5	4.6	4.6	4.5	4.6	4.6	4.5	4.7	4.6	4.5	4.5	4.7	4.6	4.5	4.5	4.5	4.5	4.5
3-methylpentane	2.6	2.6	2.7	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.6	2.7	2.7	2.6	2.6	2.6	2.6	2.6
n-hexane	2.1	2.2	2.1	2.3	2.2	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1
Methylcyclopentane	1.1	1.3	1.2	1.2	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.8	0.9	1.0	1.1	0.9	0.9	1.0	1.1	0.9	0.9	0.9	1.0	1.0
Benzene	1.5	1.7	1.7	1.6	1.8	1.5	1.6	1.5	1.5	1.8	1.7	1.5	1.6	1.5	1.7	1.5	1.6	1.6	1.6	1.6	1.6
2-methylhexane	1.0	1.2	1.0	1.1	1.1	1.0	0.9	1.0	1.0	0.9	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.1	1.1	1.1	1.4	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.3	1.4	1.2	1.2	1.1	1.1	1.1	1.2	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1
Isooctane	1.2	1.4	1.5	1.3	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Toluene	2.5	2.2	2.3	2.4	2.3	2.0	2.1	2.0	2.0	2.1	1.9	1.9	2.1	2.0	1.9	1.9	2.1	2.1	2.1	2.1	2.1

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )							
		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting			
		5-6-02	5-13-02	5-20-02	5-27-02	5-6-02	5-13-02	5-20-02	5-27-02	5-6-02	5-13-02	5-20-02	5-27-02	5-6-02	5-13-02	5-20-02	5-27-02	5-6-02	5-13-02	5-20-02	5-27-02
Isobutane	2.2	2.3	2.4	2.3	2.4	2.3	2.4	2.3	2.4	2.2	2.2	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.3	2.2	2.2
n-butane	11.1	10.6	10.5	10.6	11.3	10.6	11.3	10.6	11.3	10.6	10.8	10.7	10.6	10.6	11.0	10.8	10.6	10.6	11.0	10.8	10.7
Isopentane	31.0	29.9	29.6	29.0	30.1	30.4	30.1	30.4	30.1	30.4	30.6	30.4	29.9	30.5	30.5	30.5	30.5	30.5	30.9	30.5	30.9
n-pentane	9.1	9.0	9.3	8.9	8.8	8.9	8.8	8.9	8.9	8.9	8.9	9.0	8.9	8.9	9.0	8.9	8.9	8.9	9.0	8.9	9.0
trans-2-pentene	2.0	2.8	2.6	2.9	2.7	2.1	2.7	2.1	2.7	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	3.0	3.1	3.2	2.9	2.9	2.9	3.0	3.1	3.0	3.0	3.1	3.0	3.0	2.9	2.9	3.0	3.0	2.9	2.9	2.9
MTBE/2,3-dimethylbutane																					
MTBE	21.3	20.8	20.8	21.0	20.4	22.2	22.1	21.8	22.1	22.2	22.1	21.8	21.8	22.2	22.1	22.1	22.2	22.2	22.1	22.1	22.2
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
2-methylpentane	4.5	4.4	4.6	4.5	4.5	4.5	4.5	4.4	4.4	4.5	4.5	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
3-methylpentane	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.5	2.5	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
n-hexane	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Methylcyclopentane	1.1	1.2	1.3	1.3	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.2	1.2	1.0	1.2	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9
Benzene	1.5	2.2	1.6	2.2	2.1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
2-methylhexane	1.0	0.9	1.2	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.1	1.3	1.4	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.2	1.1	1.3	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Isooctane	1.2	1.4	1.4	1.5	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Toluene	2.5	2.4	2.1	2.2	1.8	2.1	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1	1.9	2.1	2.1	2.1	1.9	2.1	2.0

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )								
	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting	Week Starting			
Target	6-03-02	6-10-02	6-17-02	6-24-02	6-03-02	6-10-02	6-17-02	6-24-02	6-03-02	6-10-02	6-17-02	6-24-02	6-03-02	6-10-02	6-17-02	6-24-02	6-03-02	6-10-02	6-17-02	6-24-02	
Isobutane	2.4	2.1	2.4	2.3	2.3	2.2	2.3	2.1	2.3	2.1	2.3	2.1	2.3	2.1	2.3	2.1	2.3	2.1	2.3	2.1	
n-butane	9.9	10.3	10.6	10.1	11.0	10.4	10.9	10.4	11.4	10.1	11.0	10.0	11.4	10.1	11.0	10.0	11.4	10.1	11.0	10.0	
Isopentane	27.3	28.7	29.1	28.6	30.9	30.3	30.6	30.6	31.8	30.7	31.4	30.4	31.8	30.7	31.4	30.4	31.8	30.7	31.4	30.4	
n-pentane	8.5	8.5	8.9	8.6	8.9	8.8	8.9	8.8	9.0	8.8	8.9	8.8	9.0	8.8	8.9	8.8	9.0	8.8	8.9	8.8	
trans-2-pentene	2.2	2.1	2.2	2.3	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	1.9	2.0	1.9	2.0	1.9	2.0	1.9	
2-methyl-2-butene	2.9	2.8	2.8	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	
MTBE/2,3-dimethylbutane																					
MTBE	22.6	22.5	22.6	22.2	23.3	23.7	23.1	23.4	22.8	23.9	22.8	22.8	22.8	23.9	22.8	22.8	22.8	23.9	22.8	22.8	
2,3-dimethylbutane	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
2-methylpentane	4.6	4.6	4.4	4.5	4.5	4.5	4.4	4.6	4.3	4.5	4.4	4.6	4.3	4.5	4.4	4.6	4.3	4.5	4.4	4.6	
3-methylpentane	2.9	2.5	2.5	2.5	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5	2.6	
n-hexane	2.2	2.3	2.1	2.2	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.1	2.0	2.1	
Methylcyclopentane	1.1	1.2	1.5	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.0	1.1	1.1	1.1	
2,4-dimethylpentane	1.3	1.7	1.1	1.1	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	
Benzene	2.2	1.7	3.8	1.8	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.3	1.6	1.4	1.7	1.3	1.6	1.4	1.7	
2-methylhexane	1.4	1.1	1.2	1.4	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	
2,3-dimethylpentane	1.8	1.3	1.5	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.1	
3-methylhexane	1.4	1.3	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.0	1.1	
Isooctane	1.7	1.5	1.6	1.6	1.1	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.2	1.3	
Toluene	2.5	2.4	1.9	2.0	1.3	1.8	1.7	1.8	0.9	1.4	1.7	1.8	0.9	1.4	1.7	1.8	0.9	1.4	1.7	1.8	



**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )					
	Target	Week Starting 8-05-02	Week Starting 8-12-02	Week Starting 8-19-02	Week Starting 8-26-02	Week Starting 8-05-02	Week Starting 8-12-02	Week Starting 8-19-02	Week Starting 8-26-02	Week Starting 8-05-02	Week Starting 8-12-02	Week Starting 8-19-02	Week Starting 8-26-02	Week Starting 8-05-02	Week Starting 8-12-02	Week Starting 8-19-02	Week Starting 8-26-02	
Isobutane	2.2	2.0	2.3	2.1	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	
n-butane	11.1	10.0	10.7	10.0	10.0	10.5	10.6	10.5	10.5	10.8	10.2	10.8	10.7	10.8	10.2	10.8	10.7	
Isopentane	31.0	28.3	28.3	27.1	27.5	30.8	30.6	30.3	30.5	31.0	30.5	31.0	30.9	31.0	30.5	31.0	30.9	
n-pentane	9.1	8.5	8.3	8.1	8.3	8.8	8.9	8.8	8.9	8.9	8.8	8.9	8.9	8.9	8.8	8.9	8.9	
trans-2-pentene	2.0	2.3	2.0	2.8	2.6	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
2-methyl-2-butene	2.9	2.7	2.9	2.9	3.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	
MTBE/2,3-dimethylbutane																		
MTBE	21.3	22.2	22.0	21.3	21.2	23.3	23.3	22.9	23.2	22.7	23.5	22.6	22.9	22.7	23.5	22.6	22.9	
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
2-methylpentane	4.5	4.4	4.6	4.4	4.9	4.5	4.5	4.4	4.5	4.4	4.5	4.4	4.4	4.4	4.5	4.4	4.4	
3-methylpentane	2.6	2.6	2.5	2.8	2.6	2.6	2.7	2.6	2.6	2.5	2.6	2.5	2.5	2.5	2.6	2.5	2.5	
n-hexane	2.1	2.4	2.2	2.2	2.3	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	
Methylcyclopentane	1.1	1.2	1.4	1.4	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
2,4-dimethylpentane	0.9	1.5	1.6	1.3	2.4	0.9	0.9	1.0	0.7	0.9	0.9	1.0	0.9	0.9	1.0	1.0	0.9	
Benzene	1.5	2.1	1.4	1.9	1.7	1.4	1.4	1.8	1.4	1.5	1.6	1.5	1.5	1.5	1.6	1.5	1.5	
2-methylhexane	1.0	1.2	1.1	1.7	1.3	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	
2,3-dimethylpentane	1.0	1.6	1.7	2.3	1.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1	
3-methylhexane	1.1	1.4	1.7	1.9	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Isooctane	1.2	1.7	1.9	1.9	1.5	1.2	1.2	1.2	1.1	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.2	
Toluene	2.5	2.9	2.3	3.0	2.6	1.7	1.7	2.2	1.9	1.8	1.7	1.8	1.8	1.8	1.7	1.8	1.8	

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )											
		Week Starting 9-2-02	Week Starting 9-9-02	Week Starting 9-16-02	Week Starting 9-23-02	Week Starting 9-30-02	Week Starting 9-6-02	Week Starting 9-13-02	Week Starting 9-20-02	Week Starting 9-27-02	Week Starting 10-4-02	Week Starting 10-11-02	Week Starting 10-18-02	Week Starting 10-25-02	Week Starting 11-1-02	Week Starting 11-8-02	Week Starting 11-15-02	Week Starting 11-22-02	Week Starting 11-29-02	Week Starting 12-6-02	Week Starting 12-13-02	Week Starting 12-20-02	Week Starting 12-27-02		
Isobutane	2.2	2.5	2.1	2.3	2.2	2.5	2.2	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
n-butane	11.1	9.6	9.8	10.2	9.7	9.8	10.5	10.7	10.4	10.2	10.2	10.4	10.2	10.2	10.4	10.2	10.4	10.2	10.4	10.2	10.4	10.2	10.4	10.2	10.4
Isopentane	31.0	26.4	28.4	28.1	27.5	27.5	30.2	30.3	30.5	30.4	30.1	30.4	30.1	30.4	30.1	30.4	30.1	30.4	30.1	30.4	30.1	30.4	30.1	30.4	30.7
n-pentane	9.1	8.4	8.4	8.8	8.7	8.2	8.8	8.8	8.8	8.9	8.8	8.9	8.8	8.9	8.8	8.9	8.8	8.9	8.8	8.9	8.8	8.9	8.8	8.9	8.9
trans-2-pentene	2.0	2.9	2.1	2.9	2.8	2.5	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.7	2.6	2.9	2.8	2.7	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
MTBE/2,3-dimethylbutane																									
MTBE	21.3	21.7	22.5	22.9	22.0	21.7	22.8	22.8	23.9	23.2	23.0	22.8	23.9	23.2	23.0	22.8	23.9	23.2	23.0	22.8	23.9	23.2	23.0	22.8	22.8
2,3-dimethylbutane	0.9	0.9	0.9	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.4	5.0	4.4	5.0	4.4	4.4	4.4	4.6	4.5	4.5	4.4	4.6	4.5	4.5	4.4	4.6	4.5	4.5	4.4	4.6	4.5	4.5	4.4	4.4
3-methylpentane	2.6	2.8	3.0	2.5	2.5	2.7	2.6	2.5	2.5	2.6	2.6	2.6	2.5	2.6	2.6	2.5	2.5	2.6	2.6	2.5	2.5	2.6	2.6	2.5	2.6
n-hexane	2.1	2.1	2.2	2.3	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.1	2.1
Methylcyclopentane	1.1	1.4	1.2	1.4	1.6	1.5	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	2.5	1.0	1.0	1.1	2.3	1.0	1.0	1.0	0.9	1.0	1.0	1.0	0.9	1.0	0.9	1.0	1.0	0.9	1.0	0.8	1.0	1.0	1.0	1.0
Benzene	1.5	2.0	1.7	2.0	2.0	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.6	1.6
2-methylhexane	1.0	1.2	1.3	1.1	1.3	1.2	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.1	0.9	1.0	1.0	1.0	0.9	1.0	0.9	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.9	2.0	1.7	1.7	2.0	1.1	1.1	1.1	1.0	1.3	1.0	1.1	1.0	1.0	1.0	1.1	1.2	1.0	1.1	1.2	1.0	1.1	1.1	1.1
3-methylhexane	1.1	1.6	1.3	1.2	1.6	1.5	1.0	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1
Isooctane	1.2	1.6	1.9	1.3	1.7	2.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.2	1.3	1.3
Toluene	2.5	3.5	2.6	2.0	2.6	2.5	2.1	2.1	1.7	2.0	2.2	2.1	1.7	2.0	2.2	1.9	1.7	1.9	1.7	1.9	1.7	1.9	1.7	1.9	1.9

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )							
	Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting			
	10-7-02	10-14-02	10-21-02	10-28-02	10-7-02	10-14-02	10-21-02	10-28-02	10-7-02	10-14-02	10-21-02	10-28-02	10-7-02	10-14-02	10-21-02	10-28-02	10-7-02	10-14-02	10-21-02	10-28-02
Isobutane	2.2	2.3	2.0	2.1	1.9	2.0	2.1	2.0	2.1	2.0	2.1	2.1	1.9	2.1	2.1	2.1	2.1	2.1	2.1	2.1
n-butane	11.1	9.8	10.1	9.5	9.0	9.9	10.3	10.1	10.1	10.1	10.1	10.1	9.5	10.4	10.3	10.3	10.3	10.3	10.3	10.3
Isopentane	31.0	28.1	28.3	27.6	25.7	30.2	30.1	30.2	30.1	30.2	30.1	30.1	30.2	30.7	30.9	31.0	31.0	31.0	31.0	31.0
n-pentane	9.1	8.6	8.7	8.8	7.9	8.8	8.7	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.9	8.9	8.9	8.9	8.9	8.9
trans-2-pentene	2.0	2.5	2.6	2.6	2.2	2.0	1.9	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.9	2.7	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.8	2.8	2.9	2.8	2.8
MTBE/2,3-dimethylbutane																				
MTBE	21.3	23.2	22.1	21.7	24.9	23.5	23.0	23.1	22.7	23.1	23.0	23.1	24.0	23.1	23.0	23.1	24.0	23.1	23.0	23.1
2,3-dimethylbutane	0.9	1.0	0.9	0.9	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.5	4.7	4.6	5.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.7	4.5	4.5	4.5	4.7	4.5	4.5	4.5
3-methylpentane	2.6	2.6	2.7	2.7	2.8	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.5	2.6	2.6
n-hexane	2.1	2.2	2.2	2.6	1.9	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1
Methylcyclopentane	1.1	1.2	1.4	1.4	1.5	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.2	1.1	1.5	3.2	1.1	1.1	0.9	1.0	1.1	1.1	0.9	0.9	0.9	0.8	0.9	0.9	0.8	0.8	1.0
Benzene	1.5	1.9	1.8	2.2	2.0	1.5	1.8	1.8	1.5	1.8	1.8	1.5	1.5	1.6	1.6	1.5	1.5	1.6	1.6	1.5
2-methylhexane	1.0	1.0	1.2	1.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.1	1.0	1.0	0.9
2,3-dimethylpentane	1.0	1.3	1.6	1.8	1.3	1.1	1.2	1.1	1.1	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1
3-methylhexane	1.1	1.3	1.4	1.7	1.4	1.2	1.1	1.2	1.1	1.2	1.1	1.2	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1
Isooctane	1.2	1.6	1.5	1.4	1.4	1.3	1.3	1.3	1.1	1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.4	1.3	1.2	1.2
Toluene	2.5	2.8	2.8	2.8	2.4	2.1	2.1	2.2	2.0	2.1	2.2	2.1	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.6

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )						
		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		
		11-4-02	11-11-02	11-18-02	11-25-02	11-4-02	11-11-02	11-18-02	11-25-02	11-4-02	11-11-02	11-18-02	11-25-02	11-4-02	11-11-02	11-18-02	11-25-02	11-4-02	11-11-02	11-18-02	11-25-02
Isobutane	2.2	2.1	2.1	2.5	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	1.9	2.1	2.1	1.9	1.9	2.1
n-butane	11.1	9.5	9.8	9.6	9.5	9.8	9.9	9.8	9.9	9.8	9.9	9.9	10.3	9.4	9.2	10.3	10.3	9.4	9.2	10.3
Isopentane	31.0	27.5	27.7	27.1	26.6	30.0	30.3	30.0	30.3	30.3	30.3	30.1	30.7	30.1	30.0	30.7	30.7	30.1	30.0	30.7
n-pentane	9.1	8.4	8.5	8.5	8.7	9.0	8.8	9.0	8.8	8.9	9.0	9.0	9.0	8.8	8.8	8.9	8.9	8.8	8.8	8.9
trans-2-pentene	2.0	2.7	2.6	3.1	2.7	2.2	2.0	2.2	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.8	3.3	4.0	3.0	2.9	2.8	2.9	2.8	2.9	2.9	2.9	2.9	2.8	2.8	2.9	2.9	2.8	2.8	2.9
MTBE/2,3-dimethylbutane																				
MTBE	21.3	22.6	23.2	22.5	22.4	23.5	23.4	23.6	23.4	23.6	23.4	23.4	22.8	23.9	24.2	22.7	22.7	23.9	24.2	22.7
2,3-dimethylbutane	0.9	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.5	4.6	4.4	4.7	4.6	4.6	4.6	4.6	4.6	4.7	4.7	4.5	4.7	4.8	4.5	4.5	4.7	4.8	4.5
3-methylpentane	2.6	2.6	2.4	2.4	2.7	2.7	2.6	2.7	2.6	2.7	2.7	2.7	2.6	2.7	2.7	2.6	2.6	2.7	2.7	2.6
n-hexane	2.1	2.1	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1
Methylcyclopentane	1.1	1.3	1.3	1.9	1.5	1.1	1.2	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.6	1.3	1.8	1.8	1.0	1.3	1.0	1.3	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Benzene	1.5	2.1	2.0	1.7	2.6	1.4	1.4	1.5	1.4	1.5	1.5	1.5	1.6	1.6	1.4	1.6	1.6	1.6	1.4	1.6
2-methylhexane	1.0	1.2	1.4	1.4	1.3	0.9	0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.2	1.1	1.0	1.2	1.2	1.1	1.0
2,3-dimethylpentane	1.0	1.5	1.6	1.7	1.7	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.1	1.2	1.2	1.1	1.2	1.2	1.2	1.1
3-methylhexane	1.1	1.7	1.6	1.2	1.4	1.2	1.2	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Isooctane	1.2	1.7	1.5	1.4	1.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.2
Toluene	2.5	2.9	2.3	2.0	2.5	2.1	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.8	1.9	1.9	1.9	1.8	2.0

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )							
	Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting			
	12-2-02	12-9-02	12-16-02	12-23-02	02	12-2-02	12-9-02	12-16-02	12-23-02	02	12-2-02	12-9-02	12-16-02	12-23-02	02	12-2-02	12-9-02	12-16-02	12-23-02	
Isobutane	2.2	2.6	2.0	2.1	2.2	2.1	1.8	2.0	2.1	2.1	2.1	1.8	2.1	2.1	2.1	2.1	1.8	2.1	2.1	2.0
n-butane	11.1	10.0	9.5	9.6	9.8	10.2	9.4	10.1	10.1	10.1	10.3	9.5	10.3	10.4	10.2	10.3	9.5	10.3	10.4	10.2
Isopentane	31.0	27.9	28.2	27.7	28.7	30.4	30.0	30.2	30.4	30.3	30.8	30.6	31.0	30.9	30.7	30.8	30.6	31.0	30.9	30.7
n-pentane	9.1	8.9	8.6	8.5	8.7	8.9	9.0	8.9	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
trans-2-pentene	2.0	2.6	2.7	2.8	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1
2-methyl-2-butene	2.9	2.8	2.9	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
MTBE/2,3-dimethylbutane	21.3	22.9	21.9	22.8	21.8	23.1	23.4	22.9	22.9	23.0	22.7	23.3	22.8	22.6	22.6	22.7	23.3	22.8	22.6	22.6
MTBE	0.9	1.0	0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylbutane	4.5	4.4	4.4	4.6	4.4	4.6	4.6	4.6	4.6	4.6	4.6	4.7	4.5	4.5	4.5	4.6	4.7	4.5	4.5	4.5
2-methylpentane	2.6	2.7	2.5	2.6	2.8	2.6	2.7	2.6	2.7	2.6	2.6	2.7	2.6	2.6	2.6	2.6	2.7	2.6	2.6	2.6
3-methylpentane	2.1	2.2	2.1	2.4	2.2	2.1	2.2	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1
n-hexane	1.1	1.1	1.3	1.2	1.3	1.1	1.2	1.2	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1
Methylcyclopentane	0.9	1.1	1.3	1.0	1.2	0.9	1.0	1.0	1.0	0.9	0.9	1.0	1.0	0.9	0.9	0.9	1.0	1.0	0.9	0.9
2,4-dimethylpentane	1.5	1.9	1.7	2.1	1.9	1.5	1.6	1.5	1.5	1.6	1.5	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.6	1.6
Benzene	1.0	1.3	1.4	1.4	1.3	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0
2-methylhexane	1.0	1.7	1.6	2.0	1.5	1.1	1.2	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,3-dimethylpentane	1.1	1.3	1.5	1.6	1.4	1.1	1.3	1.2	1.1	1.1	1.1	1.3	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.2
3-methylhexane	1.2	1.7	1.4	1.5	1.6	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.3	1.3	1.2	1.2	1.2
Isooctane	2.5	2.1	3.6	2.8	2.7	2.0	2.2	2.2	2.2	2.1	1.9	2.2	2.2	2.1	2.2	1.9	1.9	1.6	1.9	2.1
Toluene																				

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )					
		Week Starting 1-6-03	Week Starting 1-13-03	Week Starting 1-20-03	Week Starting 1-27-03	Week Starting 1-6-03	Week Starting 1-13-03	Week Starting 1-20-03	Week Starting 1-27-03	Week Starting 1-6-03	Week Starting 1-13-03	Week Starting 1-20-03	Week Starting 1-27-03	Week Starting 1-6-03	Week Starting 1-13-03	Week Starting 1-20-03	Week Starting 1-27-03		
Isobutane	2.2	2.1	2.2	2.1	2.2	2.0	2.0	2.1	2.2	2.0	2.0	2.1	2.2	2.0	2.0	2.1	2.1		
n-butane	11.1	9.4	9.1	10.0	10.0	10.1	9.9	10.2	10.5	10.2	10.2	10.5	10.2	10.2	10.2	10.0	10.6		
Isopentane	31.0	27.9	27.3	28.4	27.5	30.7	30.2	30.3	30.5	30.8	30.8	30.5	30.8	30.8	30.8	30.8	31.1		
n-pentane	9.1	8.5	8.7	8.8	8.8	8.9	8.9	8.8	8.9	9.0	8.9	8.9	8.9	9.0	8.9	8.9	9.0		
trans-2-pentene	2.0	2.4	2.3	2.4	2.5	2.2	2.2	1.9	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0		
2-methyl-2-butene	2.9	2.8	2.9	3.3	3.3	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9		
MTBE/2,3-dimethylbutane																			
MTBE	21.3	23.3	22.7	22.3	22.6	23.6	23.3	23.3	23.0	22.9	22.8	23.0	22.8	22.9	22.8	22.8	22.6		
2,3-dimethylbutane	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
2-methylpentane	4.5	4.9	4.5	4.4	4.6	4.6	4.6	4.7	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.5		
3-methylpentane	2.6	2.8	3.1	2.6	2.5	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6		
n-hexane	2.1	2.2	2.3	2.3	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1		
Methylcyclopentane	1.1	1.3	1.4	1.2	1.5	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		
2,4-dimethylpentane	0.9	1.0	1.9	1.3	1.1	0.9	1.0	1.0	0.7	1.0	1.0	0.7	1.0	1.0	0.9	0.9	0.9		
Benzene	1.5	1.8	2.0	1.9	2.0	1.4	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.6	1.6	1.5	1.5		
2-methylhexane	1.0	1.1	1.0	1.1	1.3	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
2,3-dimethylpentane	1.0	1.3	1.9	1.3	1.9	1.1	1.3	1.2	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1		
3-methylhexane	1.1	1.9	1.4	1.4	1.4	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1		
Isocotane	1.2	1.6	1.4	1.4	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.2		
Toluene	2.5	2.7	2.8	2.8	2.7	1.5	2.0	2.1	2.0	1.8	2.0	2.1	2.0	1.8	2.0	1.9	1.7		

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )								
	Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting				
	2-3-03	2-10-03	2-17-03	2-24-03	2-3-03	2-10-03	2-17-03	2-24-03	2-3-03	2-10-03	2-17-03	2-24-03	2-3-03	2-10-03	2-17-03	2-24-03	2-3-03	2-10-03	2-17-03	2-24-03	
Isobutane	2.0	2.7	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
n-butane	11.1	9.5	9.9	9.8	10.2	10.2	10.6	10.3	10.4	10.4	10.3	10.3	10.4	10.0	10.0	10.8	10.4	10.0	10.0	10.8	10.0
Isopentane	31.0	27.1	27.4	27.1	30.3	30.3	30.5	30.3	30.7	30.3	30.5	30.3	30.7	30.7	30.9	30.7	30.7	30.7	30.9	30.7	30.7
n-pentane	9.1	8.9	8.6	8.6	8.9	8.9	8.9	8.9	8.9	8.8	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
trans-2-pentene	2.0	3.2	2.3	2.6	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.8	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.8
MTBE/2,3-dimethylbutane																					
MTBE	21.3	22.7	22.1	21.7	23.3	23.2	22.7	23.0	22.7	23.2	22.7	23.0	22.7	23.4	22.3	22.3	22.7	23.4	22.3	22.3	23.3
2,3-dimethylbutane	0.9	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2-methylpentane	4.5	4.7	4.7	4.3	4.6	4.6	4.5	4.6	4.6	4.6	4.5	4.6	4.5	4.7	4.4	4.4	4.5	4.7	4.4	4.4	4.6
3-methylpentane	2.6	2.7	2.7	2.8	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7
n-hexane	2.1	2.1	2.2	2.5	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Methylcyclopentane	1.1	1.4	1.2	1.3	1.1	1.1	1.1	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.1	1.4	1.2	0.9	1.0	1.0	1.1	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1.0	1.0	0.9	0.9	1.0
Benzene	1.5	1.8	1.7	1.8	1.5	1.5	1.5	2.1	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
2-methylhexane	1.0	1.4	1.4	1.6	1.0	1.0	1.0	1.2	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.8	1.9	1.8	1.2	1.2	1.1	1.5	1.2	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.7	1.5	1.7	1.1	1.1	1.3	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Isocotane	1.2	1.2	1.5	1.8	1.3	1.2	1.2	1.7	1.3	1.2	1.2	1.3	1.2	1.3	1.2	1.2	1.3	1.3	1.2	1.2	1.3
Toluene	2.5	3.1	2.9	3.3	2.0	2.1	2.1	2.9	2.0	2.1	2.1	2.0	2.1	2.0	1.9	1.9	2.0	1.5	1.9	1.9	1.5

**Protocol Number FY01-013  
Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )					
		Week	Week	Week	Week	Week	Week	Week	Week	Week	Week	Week	Week	Week	Week	Week	Week	Week	Week
		Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting
Isobutane	2.2	2.1	2.3	2.2	2.4	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.3	2.2	2.2	2.2	2.2
n-butane	11.1	9.8	10.1	10.5	9.9	10.4	10.5	10.2	10.7	10.6	10.6	10.6	10.7	10.1	10.9	10.8	10.7	10.7	10.7
Isopentane	31.0	28.0	28.3	28.8	28.0	28.5	30.3	30.4	30.5	30.4	30.5	30.5	30.9	30.8	31.0	31.0	30.7	30.7	30.7
n-pentane	9.1	8.9	8.4	8.9	8.4	8.7	8.8	8.9	8.8	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
trans-2-pentene	2.0	2.7	2.3	2.3	2.4	2.6	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.9	3.4	2.9	3.3	3.5	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
MTBE/2,3-dimethylbutane																			
MTBE	21.3	22.4	22.3	22.1	21.5	21.9	22.7	23.2	22.5	22.4	22.7	22.4	22.4	23.3	22.3	22.3	22.3	22.4	22.4
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9
2-methylpentane	4.5	4.4	4.6	4.4	4.5	4.6	4.5	4.6	4.5	4.5	4.5	4.5	4.5	4.6	4.5	4.5	4.5	4.5	4.5
3-methylpentane	2.6	2.7	2.5	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
n-hexane	2.1	2.2	2.3	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Methylcyclopentane	1.1	1.2	1.3	1.2	1.6	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.2	1.1	1.0	1.4	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.9	0.9	0.9	0.9
Benzene	1.5	2.1	1.8	1.9	1.8	2.3	1.5	1.4	1.6	1.5	1.6	1.5	1.6	1.4	1.5	1.5	1.5	1.6	1.6
2-methylhexane	1.0	1.4	1.1	1.1	1.1	1.2	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.4	1.4	1.3	1.6	1.3	1.1	1.2	1.1	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.4	1.4	1.3	1.7	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Isooctane	1.2	1.5	1.7	1.4	1.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Toluene	2.5	2.8	2.7	2.9	2.8	2.5	2.1	2.0	2.2	2.2	2.2	2.2	2.2	1.9	1.9	1.8	1.8	1.8	1.8

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Low (2.0g/m <sup>3</sup> )			Mid (10g/m <sup>3</sup> )			High (20g/m <sup>3</sup> )		
	Week Starting 4-7-03	Week Starting 4-14-03	Week Starting 4-21-03	Week Starting 4-7-03	Week Starting 4-14-03	Week Starting 4-21-03	Week Starting 4-7-03	Week Starting 4-14-03	Week Starting 4-21-03
Isobutane	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.2
n-butane	10.5	10.4	10.2	10.6	10.7	10.6	10.9	10.9	10.8
Isopentane	28.6	29.1	28.6	30.5	30.6	30.7	30.8	31.0	30.8
n-pentane	8.9	8.6	8.5	8.9	8.9	8.9	8.9	8.9	8.9
trans-2-pentene	2.0	2.4	2.3	2.1	2.1	2.0	2.0	2.1	2.0
2-methyl-2-butene	3.8	3.4	3.5	2.9	2.9	2.9	2.9	2.9	2.9
MTBE/2,3-dimethylbutane									
MTBE	21.3	21.6	22.2	22.9	22.5	22.9	22.3	22.3	22.3
2,3-dimethylbutane	0.9	0.9	0.9	1.0	0.9	1.0	0.9	0.9	0.9
2-methylpentane	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.5	4.4
3-methylpentane	2.6	2.5	2.6	2.6	2.6	2.6	2.5	2.5	2.5
n-hexane	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1
Methylcyclopentane	1.1	1.2	1.5	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.4	1.3	0.9	0.9	0.9	0.9	0.9	1.0
Benzene	1.5	1.6	1.8	1.5	1.5	1.4	1.6	1.6	1.6
2-methylhexane	1.0	1.3	1.2	0.9	0.9	0.9	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.5	1.3	1.2	1.1	1.1	1.0	1.0	1.1
3-methylhexane	1.1	1.2	1.5	1.1	1.1	1.0	1.1	1.1	1.1
Isooctane	1.2	1.4	1.4	1.2	1.2	1.2	1.2	1.2	1.2
Toluene	2.5	2.3	2.1	1.9	2.1	1.8	2.0	1.9	2.0

**Protocol Number FY01-013**  
**Chronic Inhalation of Gasoline MTBE Vapor Condensate**

**Weekly Gas Chromatographic Profiles of Chamber Atmospheres (Area %)**

Component	Target	Low (2.0g/m <sup>3</sup> )						Mid (10g/m <sup>3</sup> )						High (20g/m <sup>3</sup> )							
		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting		Week Starting			
		5-5-03	5-12-03	5-19-03	5-26-03	5-5-03	5-12-03	5-19-03	5-26-03	5-5-03	5-12-03	5-19-03	5-26-03	5-5-03	5-12-03	5-19-03	5-26-03	5-5-03	5-12-03	5-19-03	5-26-03
Isobutane	2.2	2.2	2.2	2.4	2.4	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
n-butane	11.1	10.2	10.2	10.6	10.2	10.6	10.1	10.5	10.3	10.6	10.1	10.5	10.3	10.9	10.7	10.8	10.7	10.7	10.8	10.7	10.7
Isopentane	31.0	28.9	28.3	29.1	28.5	30.5	30.4	30.2	30.2	30.5	30.4	30.2	30.2	31.1	31.0	31.0	31.1	31.0	31.0	31.0	30.8
n-pentane	9.1	8.6	8.7	8.6	8.7	8.9	8.8	8.8	8.9	8.9	8.8	8.9	8.9	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.9
trans-2-pentene	2.0	2.6	2.2	2.3	2.4	2.1	1.9	2.1	2.2	2.1	1.9	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2-methyl-2-butene	2.9	2.9	3.5	3.2	3.0	2.9	3.3	2.9	2.9	2.9	3.3	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
MTBE/2,3-dimethylbutane																					
MTBE	21.3	21.7	21.5	21.2	21.8	22.4	23.0	22.1	22.7	22.4	23.0	22.1	22.7	22.3	22.4	22.3	22.3	22.4	22.3	22.3	22.2
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
2-methylpentane	4.5	4.6	4.7	4.5	5.2	4.5	4.7	4.7	4.6	4.5	4.7	4.7	4.6	4.4	4.5	4.5	4.4	4.5	4.5	4.5	4.5
3-methylpentane	2.6	2.5	2.5	2.8	2.7	2.6	2.7	2.7	2.7	2.6	2.7	2.7	2.7	2.5	2.6	2.6	2.5	2.6	2.6	2.6	2.6
n-hexane	2.1	2.2	2.2	2.2	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Methylcyclopentane	1.1	1.3	1.4	1.4	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2,4-dimethylpentane	0.9	1.1	1.0	1.2	1.0	0.9	1.0	1.1	1.0	0.9	1.0	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Benzene	1.5	2.1	2.2	1.8	2.1	1.6	1.4	1.6	1.4	1.6	1.4	1.6	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
2-methylhexane	1.0	1.2	1.3	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0
2,3-dimethylpentane	1.0	1.3	1.6	1.6	1.6	1.1	1.3	1.2	1.3	1.1	1.3	1.2	1.3	1.0	1.1	1.1	1.0	1.1	1.1	1.1	1.1
3-methylhexane	1.1	1.2	1.4	1.4	1.4	1.1	1.1	1.2	1.2	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Isooctane	1.2	1.8	1.6	1.2	1.2	1.2	1.3	1.2	1.3	1.2	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3
Toluene	2.5	2.4	2.7	2.7	2.5	2.2	1.9	2.3	2.0	2.2	1.9	2.3	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9

APPENDIX G  
ENVIRONMENTAL DATA

- G-1 Light and Sound Measurements
- G-2 Monthly Summaries of Chamber Flow, Relative Humidity, and Temperature
- G-3 Monthly Summaries of Percent Time Environmental Conditions were Out of Specified Ranges

G-1 Light and Sound Measurements

Light and Sound Measurements FY01-013

Date	Chamber 5 (Control)		Chamber 6 (2 g/m <sup>3</sup> )		Chamber 7 (10 g/m <sup>3</sup> )		Chamber 8 (20 g/m <sup>3</sup> )	
	Decibels	Foot Candles	Decibels	Foot Candles	Decibels	Foot Candles	Decibels	Foot Candles
3/15/01	81	40	77	30	74	45	73.5	44
5/16/01	ND	40	ND	20	ND	35	ND	51
5/18/01	84	31	80	13	80	28	80	24
10/2/01	76	30.1	76	13.5	72	27.8	77	24.2
5/13/02	79	25	74	13	77	26.5	75	24.8
8/15/02	80	23.3	72	12.5	74	22	72.5	18
1/14/03	82	28.6	74	16.1	76	22.2	75	22.1
5/23/03	82	30	76	15	77	28	78	23

<sup>a</sup>ND. No value recorded. Measurements of both sound and light were recorded two days later.

G-2 Monthly Summaries of Chamber Flow, Relative Humidity, and Temperature

Summary of Exhaust Flow Data (Liters Per Minute)  
 Chamber 5 (Control)

Month	Year	Mean	SD	Max*	Min*
May	2001	440	9	451	428
June	2001	462	23	499	430
July	2001	447	12	475	429
August	2001	447	12	476	423
September	2001	457	11	479	443
October	2001	454	13	476	431
November	2001	473	12	491	448
December	2001	455	10	468	427
January	2002	436	16	470	412
February	2002	479	22	522	443
March	2002	476	34	530	416
April	2002	430	6	443	416
May	2002	452	14	486	431
June	2002	449	9	469	433
July	2002	471	15	504	443
August	2002	443	16	500	419
September	2002	428	7	441	415
October	2002	432	7	445	416
November	2002	440	7	459	430
December	2002	437	7	454	423
January	2003	451	15	473	422
February	2003	446	4	456	438
March	2003	441	8	456	416
April	2003	449	9	463	436
May	2003	448	8	464	439

\*Min and Max of daily averages

Summary of Relative Humidity Data (%RH)  
 Chamber 5 (Control)

Month	Year	Mean	SD	Max*	Min*
May	2001	71	6	85	65
June	2001	73	8	84	51
July	2001	69	7	79	55
August	2001	68	6	78	58
September	2001	65	7	77	53
October	2001	55	12	74	30
November	2001	50	6	62	39
December	2001	48	8	72	38
January	2002	52	8	73	41
February	2002	39	6	49	24
March	2002	38	5	50	30
April	2002	42	6	61	30
May	2002	58	9	72	37
June	2002	67	4	75	56
July	2002	66	5	75	57
August	2002	67	5	84	59
September	2002	69	5	78	60
October	2002	63	11	84	45
November	2002	43	10	66	29
December	2002	40	4	50	34
January	2003	44	4	53	38
February	2003	41	8	60	28
March	2003	37	8	52	21
April	2003	32	9	50	17
May	2003	41	13	59	17

\*Min and Max of daily averages

Summary of Temperature Data (°C)  
 Chamber 5 (Control)

Month	Year	Mean	SD	Max*	Min*
May	2001	22	1	24	22
June	2001	23	1	24	21
July	2001	22	0	23	21
August	2001	22	1	23	21
September	2001	22	1	23	21
October	2001	22	1	23	21
November	2001	22	1	23	21
December	2001	22	1	23	21
January	2002	21	1	23	20
February	2002	22	1	23	20
March	2002	22	1	24	21
April	2002	22	0	23	21
May	2002	22	0	23	21
June	2002	22	0	22	21
July	2002	22	0	23	22
August	2002	22	0	23	21
September	2002	22	0	22	21
October	2002	22	0	23	21
November	2002	23	1	23	21
December	2002	23	0	23	22
January	2003	22	0	23	21
February	2003	21	0	22	21
March	2003	22	1	23	20
April	2003	21	0	22	21
May	2003	22	0	22	21

\*Min and Max of daily averages

Summary of Exhaust Flow Data (Liters Per Minute)  
 Chamber 6 (2g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	451	23	467	411
June	2001	466	4	478	456
July	2001	465	12	484	443
August	2001	455	7	470	437
September	2001	459	6	467	446
October	2001	454	11	471	434
November	2001	450	22	484	419
December	2001	456	7	475	447
January	2002	451	19	494	423
February	2002	490	28	539	438
March	2002	439	15	452	368
April	2002	441	6	460	432
May	2002	444	18	474	395
June	2002	452	5	466	441
July	2002	473	16	501	450
August	2002	455	24	497	430
September	2002	453	24	485	413
October	2002	460	23	489	411
November	2002	462	7	479	453
December	2002	469	11	492	453
January	2003	460	6	468	451
February	2003	455	6	475	450
March	2003	441	13	477	420
April	2003	445	3	453	440
May	2003	443	3	447	438

\*Min and Max of daily average

Summary of Relative Humidity Data (%RH)  
 Chamber 6 (2g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	67	5	77	62
June	2001	78	4	85	71
July	2001	71	2	75	67
August	2001	69	3	74	64
September	2001	69	6	78	58
October	2001	59	9	72	47
November	2001	60	8	73	46
December	2001	57	6	72	47
January	2002	54	7	65	38
February	2002	45	9	59	25
March	2002	44	6	57	34
April	2002	46	10	71	29
May	2002	58	9	74	35
June	2002	57	1	57	51
July	2002	57	1	57	52
August	2002	57	1	58	55
September	2002	57	0	57	55
October	2002	57	2	57	47
November	2002	41	5	52	33
December	2002	41	4	48	34
January	2003	46	6	57	36
February	2003	45	5	54	36
March	2003	41	9	55	24
April	2003	43	6	55	34
May	2003	50	9	61	32

\*Min and Max of daily average

Summary of Temperature Data (°C)  
 Chamber 6 (2g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	25	0	26	24
June	2001	24	1	25	22
July	2001	22	0	23	22
August	2001	23	0	23	22
September	2001	23	0	23	22
October	2001	23	0	23	22
November	2001	23	0	23	22
December	2001	22	1	23	21
January	2002	22	0	23	22
February	2002	22	1	23	19
March	2002	22	0	23	22
April	2002	22	0	23	22
May	2002	22	0	23	21
June	2002	22	0	23	21
July	2002	22	0	23	21
August	2002	22	1	23	21
September	2002	22	1	23	21
October	2002	22	1	23	21
November	2002	22	0	23	22
December	2002	22	0	22	21
January	2003	22	1	22	21
February	2003	22	0	23	21
March	2003	22	0	23	21
April	2003	22	1	22	21
May	2003	22	0	23	21

\*Min and Max of daily average

Summary of Exhaust Flow Data (Liters Per Minute)  
 Chamber 7 (10g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	437	15	459	411
June	2001	452	9	470	437
July	2001	448	10	466	430
August	2001	446	9	472	428
September	2001	455	10	476	441
October	2001	444	11	461	421
November	2001	444	20	476	418
December	2001	438	5	447	431
January	2002	451	13	472	425
February	2002	481	33	546	429
March	2002	422	12	442	383
April	2002	440	17	497	410
May	2002	456	12	483	426
June	2002	470	9	491	457
July	2002	421	18	495	421
August	2002	448	10	465	429
September	2002	433	13	459	396
October	2002	440	6	452	430
November	2002	432	8	445	419
December	2002	444	6	458	436
January	2003	442	8	456	428
February	2003	434	4	439	424
March	2003	437	9	460	424
April	2003	430	5	438	422
May	2003	429	3	434	423

\*Min and Max of daily averages

Summary of Relative Humidity Data (%RH)  
 Chamber 7 (10g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	60	3	66	54
June	2001	71	9	83	52
July	2001	64	4	72	57
August	2001	67	4	75	59
September	2001	65	4	70	55
October	2001	54	11	73	38
November	2001	55	10	70	36
December	2001	52	6	69	43
January	2002	50	5	59	42
February	2002	40	9	56	25
March	2002	39	5	46	26
April	2002	44	12	75	27
May	2002	56	11	71	36
June	2002	65	7	77	50
July	2002	70	3	75	64
August	2002	70	7	82	58
September	2002	72	5	82	64
October	2002	59	7	72	48
November	2002	41	7	58	30
December	2002	40	5	48	33
January	2003	45	12	79	33
February	2003	41	6	57	29
March	2003	40	9	62	27
April	2003	36	5	52	27
May	2003	45	10	60	27

\*Min and Max of daily averages

Summary of Temperature Data (°C)  
 Chamber 7 (10g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	24	0	25	24
June	2001	24	1	26	23
July	2001	23	0	23	22
August	2001	23	0	23	22
September	2001	23	0	23	22
October	2001	23	0	23	22
November	2001	23	0	24	23
December	2001	22	1	24	22
January	2002	22	0	23	22
February	2002	22	1	23	21
March	2002	22	0	23	22
April	2002	23	0	23	22
May	2002	22	0	23	22
June	2002	22	0	23	21
July	2002	22	1	23	21
August	2002	22	1	23	20
September	2002	22	1	23	21
October	2002	22	1	23	21
November	2002	23	0	23	22
December	2002	22	1	23	21
January	2003	22	1	23	21
February	2003	22	0	23	22
March	2003	22	0	23	21
April	2003	21	0	22	21
May	2003	22	0	23	21

\*Min and Max of daily averages

Summary of Exhaust Flow Data (Liters Per Minute)  
 Chamber 8 (20g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	444	9	452	429
June	2001	452	4	460	444
July	2001	452	7	462	440
August	2001	453	12	474	426
September	2001	480	19	516	447
October	2001	476	15	510	458
November	2001	470	19	491	409
December	2001	461	9	475	449
January	2002	448	7	456	430
February	2002	457	17	487	433
March	2002	437	22	471	368
April	2002	457	13	473	422
May	2002	458	6	476	449
June	2002	439	15	474	413
July	2002	439	15	476	420
August	2002	444	19	483	422
September	2002	444	23	486	414
October	2002	457	4	464	452
November	2002	443	10	456	429
December	2002	437	4	444	430
January	2003	430	4	440	424
February	2003	432	17	459	386
March	2003	437	17	458	390
April	2003	437	4	444	431
May	2003	431	6	434	422

\*Min and Max of daily averages

Summary of Relative Humidity Data (%RH)  
 Chamber 8 (20g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	62	5	73	58
June	2001	72	6	81	61
July	2001	64	2	68	57
August	2001	65	2	69	59
September	2001	60	4	68	48
October	2001	53	10	70	31
November	2001	52	6	63	37
December	2001	50	7	68	39
January	2002	49	6	58	38
February	2002	49	11	73	30
March	2002	45	5	56	38
April	2002	46	5	61	38
May	2002	56	7	68	36
June	2002	66	6	76	56
July	2002	71	3	77	65
August	2002	66	3	73	60
September	2002	68	5	82	64
October	2002	59	6	69	47
November	2002	48	7	65	38
December	2002	44	6	57	34
January	2003	47	4	54	39
February	2003	49	6	66	38
March	2003	43	9	60	28
April	2003	42	5	51	33
May	2003	49	10	59	31

\*Min and Max of daily averages

Summary of Temperature Data (°C)  
 Chamber 8 (20g/m<sup>3</sup>)

Month	Year	Mean	SD	Max*	Min*
May	2001	23	1	24	22
June	2001	23	1	25	21
July	2001	22	0	23	21
August	2001	22	0	23	21
September	2001	22	0	22	21
October	2001	22	0	23	21
November	2001	22	0	23	22
December	2001	22	1	23	21
January	2002	22	1	23	21
February	2002	21	1	22	20
March	2002	21	1	23	20
April	2002	22	0	23	20
May	2002	23	0	23	21
June	2002	22	0	23	21
July	2002	22	1	23	21
August	2002	22	1	23	20
September	2002	22	1	23	21
October	2002	22	1	22	21
November	2002	22	1	22	20
December	2002	22	1	23	20
January	2003	21	0	22	21
February	2003	21	0	22	20
March	2003	21	1	23	20
April	2003	21	0	22	21
May	2003	21	0	22	21

\*Min and Max of daily averages

G-3 Monthly Summaries of Percent Time Environmental Conditions  
were Out of Specified Ranges



vwRH

ReadingId	ReadingYr/Phase	TotalCount	CountCBR	MaxCBR1	MinCBR1	PercentCB	CoumCBR	MaxCBR2	MinCBR2	PercentCB	CountCBR	MaxCBR3	MinCBR3	PercentCB	CountCBR	MaxCBR4	MinCBR4	PercentCBR4	PercentCBR4/8Out
4	2001C	48	11	28	21	22.917	10	28	23	20.833	13	29	20	27.083	8	29	27	16.667	
5	2001C	460	125	72	17	27.174	107	73	21	23.261	129	29	16	28.043	87	72	23	18.913	
5	2001S	387	207	95	71	53.488	122	84	71	31.525	17	77	71	4.393	59	82	71	15.245	
6	2001S	1277	746	103	28	58.418	1031	99	71	80.736	722	100	28	56.539	653	90	71	51.135	
7	2001S	1446	592	94	71	40.941	702	90	2	48.548	347	84	71	23.997	305	80	71	21.093	
8	2001S	1381	523	95	71	37.871	532	91	71	38.523	501	91	71	36.278	400	79	71	28.965	
9	2001S	1412	435	93	71	30.807	641	88	71	45.397	405	85	71	28.683	124	78	26	8.782	
10	2001S	1491	443	96	5	29.712	305	84	0	20.456	262	87	13	17.572	187	78	18	12.542	
11	2001S	1413	166	85	6	11.748	364	92	-151	25.761	296	89	4	20.948	43	74	13	3.043	
12	2001S	1462	251	88	-71	17.168	303	82	-241	20.725	62	79	8	4.241	43	76	22	2.941	
1	2002S	1486	320	81	0	21.534	145	82	18	9.758	46	75	7	3.096	44	75	21	2.961	
2	2002S	1286	398	76	3	30.949	194	29	8	15.088	288	80	2	22.395	195	83	10	15.163	
3	2002S	1458	508	79	-78	34.842	214	74	8	14.678	342	29	0	23.457	65	29	8	4.458	
4	2002S	1411	328	79	-6	23.246	252	85	5	17.86	378	92	3	26.79	69	79	-58	4.89	
5	2002S	1459	436	95	-125	29.893	398	702	-145	27.279	316	87	8	21.659	117	113	-131	8.019	
6	2002S	1316	554	220	-43	42.087	5	20	-111	0.38	372	110	71	28.267	330	91	71	25.076	
7	2002S	981	358	98	71	36.493	197	24	-139	20.082	422	90	71	43.017	490	95	71	49.949	
8	2002S	1367	462	92	-41	33.797	2	74	7	0.146	526	98	71	38.478	338	89	71	24.726	
9	2002S	912	434	89	-43	47.588	4	23	-49	0.439	517	98	71	56.689	247	89	71	27.083	
10	2002S	1421	490	107	-47	34.483	1	-26	-26	0.07	250	85	29	17.593	164	86	71	11.541	
11	2002S	1384	274	89	16	19.798	85	29	-35	6.142	244	72	13	17.63	27	75	25	1.951	
12	2002S	1344	218	111	7	16.22	46	29	-2	3.423	187	74	17	13.914	33	29	23	2.455	
1	2003S	1488	90	76	15	6.048	35	29	-92	2.352	294	88	7	19.758	13	29	16	0.874	
2	2003S	1344	234	29	12	17.411	35	29	13	2.604	185	71	7	13.765	42	80	23	3.125	
3	2003S	1446	476	72	11	32.918	24	29	0	1.66	358	82	13	24.758	32	72	22	2.213	
4	2003S	1382	577	29	8	41.751	48	29	25	3.473	382	29	6	27.641	59	29	-154	4.269	
5	2003S	1475	314	29	6	21.288	67	29	21	4.542	193	72	16	13.085	97	29	-163	6.576	

vwTemp

ReadingMq	ReadingYr	Phase	TotalCount	CountCBR1	MaxCBR1	MinCBR1	PercentCB	CountCBR2	MaxCBR2	MinCBR2	PercentCB	CountCBR3	MaxCBR3	MinCBR3	PercentCB	CountCBR4	MaxCBR4	MinCBR4	PercentCBR4	CountCBR4	MaxCBR4	MinCBR4	PercentCBR4	CountCBR4	MaxCBR4	MinCBR4	PercentCBR4		
4	2001	C	48	31	19.9	18.6	64.593																						
5	2001	C	460	342	19.9	18	74.348	32	25.1	24.1	6.957	58	24.6	19.9	19.9	6.25	34	19.9	18.4	70.833	335	19.9	17.6	72.826					
5	2001	S	387	28	24.8	24.1	7.235	319	26.6	24.1	82.429	225	26.2	24.1	58.14	49	25.3	24.1	12.661										
6	2001	S	1333	169	25.2	19.4	12.678	853	27	19.2	63.991	708	26.9	18.7	53.113	321	25.7	16.3	24.081										
7	2001	S	1446	3	24.2	19.1	0.207	1	19.5	19.5	0.069	20	24.6	24.1	1.383	10	63.2	18	0.692										
8	2001	S	1381	1	19.5	19.5	0.072					7	25	19.2	0.507	82	19.9	16.9	2.317										
9	2001	S	1412	5	25	18	0.354	3	25	19	0.212	4	25	19	0.283	15	25	19	1.062										
10	2001	S	1491	2	19	19	0.134	4	25	19	0.268	10	25	19	0.671	1	25	25	0.067										
11	2001	S	1413	1	19	19	0.071					2	19	19	0.142	4	19	18	0.283										
12	2001	S	1462	6	19	17	0.41	3	19	19	0.205	5	25	19	0.342	4	19	18	0.274										
1	2002	S	1486	7	19	18	0.471	4	19	18	0.269	4	19	19	0.269	8	43	19	0.538										
2	2002	S	1286	9	19	16	0.7	5	19	19	0.389	4	25	19	0.311	25	19	17	1.944										
3	2002	S	1458	31	25	17	2.126	8	25	19	0.549	21	26	19	1.44	33	25	17	2.263										
4	2002	S	1411	9	25	17	0.688	21	25	18	1.488	32	25	19	2.268	25	25	17	1.772										
5	2002	S	1459	12	19	18	0.822	10	19	18	0.685	21	26	17	1.439	32	81	17	2.193										
6	2002	S	1316	7	25	17	0.532	2	19	19	0.152	3	19	17	0.228	61	81	-30	4.635										
7	2002	S	981	11	25	18	1.121	10	26	19	1.019	24	26	18	2.446	30	27	19	3.058										
8	2002	S	1367	7	19	17	0.512	3	19	19	0.219	33	19	17	2.414	13	25	18	0.951										
9	2002	S	912	5	19	18	0.548	5	19	17	0.548	5	19	18	0.548	7	19	17	0.768										
10	2002	S	1421	12	19	0	0.844	6	19	19	0.422	14	19	18	0.985	9	19	16	0.633										
11	2002	S	1384	11	19	-29	0.795	2	19	19	0.145	4	19	19	0.289	10	19	17	0.723										
12	2002	S	1344	22	25	18	1.637	7	19	17	0.521	8	19	18	0.595	5	19	17	0.372										
1	2003	S	1488	4	19	3	0.269	7	19	19	0.47	10	19	16	0.672	18	19	17	1.21										
2	2003	S	1344	6	19	18	0.446	3	19	19	0.223	4	19	18	0.298	11	19	7	0.818										
3	2003	S	1446	10	19	18	0.692	5	19	19	0.346	2	19	19	0.138	11	19	14	0.761										
4	2003	S	1382	5	19	19	0.362	5	19	17	0.362	5	19	18	0.362	5	18	17	0.362										
5	2003	S	1475									1	19	19	0.068	5	19	18	0.339										

APPENDIX H  
INDIVIDUAL ANIMAL DISPOSITION

H-1 Males

H-2 Females

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

H-1 Males

H-2

Lovelace Respiratory  
Research Institute

Dead Animal Status List for All Animals  
Study number: FY01013M

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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic						
Animal	Number	Grp	Sex	Study	Phase	Date	and	Time	Oper.	Date	Phase	Death	Day	Typ	Status	Term.	Body	
						Data	was	Entered	No.	No.	Day	Day	Typ	Status	Wt.	(g)	Ow	Grs
6831E401	1	M	M	Dosing	phase	25-Mar-03		12:45	128	21-Mar-03	668	u		Sacrificed moribund	350.8		C	C
6831E402	1	M	M	Dosing	phase	12-Dec-02		13:56	128	12-Dec-02	569	u		Sacrificed moribund	375.6		C	C
6831E403	1	M	M	Dosing	phase	28-Jan-03		09:10	8	21-Jan-03	609	u		Sacrificed moribund	276.1		C	C
6831E404	1	M	M	Dosing	phase	03-Mar-03		16:53	128	27-Feb-03	646	u		Sacrificed moribund	494.2		C	C
6831E405	1	M	M	Dosing	phase	18-Mar-03		10:28	8	14-Mar-03	661	u		Sacrificed moribund	311.3		C	C
6831E406	1	M	M	Dosing	phase	03-Jun-03		15:54	128	13-May-03	721	u		Sacrificed moribund	224.4		C	C
6831E407	1	M	M	Dosing	phase	04-Jun-03		13:52	128	28-May-03	736	s		Final phase sacrifice	403.2		C	C
6831E408	1	M	M	Dosing	phase	20-Dec-01		14:18	128	17-Dec-01	209	u		Sacrificed moribund	312.1		C	-
6831E409	1	M	M	Dosing	phase	13-Feb-03		16:55	128	12-Feb-03	631	u		Sacrificed moribund	300.4		C	C
6831E410	1	M	M	Dosing	phase	25-Feb-03		13:18	8	25-Feb-03	644	u		Sacrificed moribund	369.2		C	C
6831E411	1	M	M	Dosing	phase	01-Apr-03		11:25	8	28-Mar-03	675	u		Sacrificed moribund	339.4		C	C
6831E412	1	M	M	Dosing	phase	12-Dec-02		13:38	128	01-Dec-02	558	u		Sacrificed moribund	331.9		C	C
6831E413	1	M	M	Dosing	phase	09-Jun-03		08:20	-1	29-May-03	737	s		Final phase sacrifice	379.5		C	C
6831E414	1	M	M	Dosing	phase	29-Jan-03		11:03	8	28-Jan-03	616	u		Sacrificed moribund	255.3		C	C
6831E415	1	M	M	Dosing	phase	09-Jun-03		08:30	-1	27-May-03	735	s		Final phase sacrifice	395.5		C	C
6831E416	1	M	M	Dosing	phase	25-Mar-03		13:06	128	19-Mar-03	666	u		Sacrificed moribund	385.4		C	C
6831E417	1	M	M	Dosing	phase	28-May-03		16:51	128	26-May-03	734	u		Sacrificed moribund	372.5		C	C
6831E418	1	M	M	Dosing	phase	09-Jun-03		16:41	128	29-May-03	737	s		Final phase sacrifice	398.2		C	C
6831E419	1	M	M	Dosing	phase	21-Apr-03		17:09	128	17-Apr-03	695	u		Sacrificed moribund	359.8		C	C
6831E420	1	M	M	Dosing	phase	24-Apr-03		17:19	128	24-Apr-03	702	u		Sacrificed moribund	355.4		C	C
6831E421	1	M	M	Dosing	phase	20-Dec-02		11:37	-1	19-Dec-02	576	u		Sacrificed moribund	385.2		C	C
6831E422	1	M	M	Dosing	phase	09-Jun-03		16:42	128	30-May-03	738	s		Final phase sacrifice	384.3		C	C
6831E423	1	M	M	Dosing	phase	10-Jan-03		16:20	128	09-Jan-03	597	u		Sacrificed moribund	381.1		C	C
6831E424	1	M	M	Dosing	phase	10-Feb-03		09:41	-1	07-Feb-03	626	u		Sacrificed moribund	365.0		C	C
6831E425	1	M	M	Dosing	phase	11-Feb-03		11:03	8	10-Feb-03	629	u		Found Dead	434.1		C	C
6831E426	1	M	M	Dosing	phase	08-May-03		16:30	128	02-May-03	710	u		Sacrificed moribund	282.1		C	C
6831E427	1	M	M	Dosing	phase	21-May-03		16:27	128	21-May-03	729	u		Sacrificed moribund	294.9		C	C
6831E428	1	M	M	Dosing	phase	10-Feb-03		09:56	-1	10-Feb-03	629	u		Sacrificed moribund	355.2		C	C
6831E429	1	M	M	Dosing	phase	18-Mar-03		10:29	8	14-Mar-03	661	u		Sacrificed moribund	352.3		C	C
6831E430	1	M	M	Dosing	phase	10-Mar-03		16:56	128	04-Mar-03	651	u		Sacrificed moribund	327.7		C	C
6831E431	1	M	M	Dosing	phase	28-Aug-02		09:17	8	15-Jun-02	389	u		Sacrificed moribund	346.8		C	C
6831E432	1	M	M	Dosing	phase	06-Mar-03		16:10	128	06-Mar-03	653	u		Sacrificed moribund	379.0		C	C
6831E433	1	M	M	Dosing	phase	01-Apr-03		11:26	8	28-Mar-03	675	u		Sacrificed moribund	311.2		C	C
6831E434	1	M	M	Dosing	phase	06-Mar-03		16:42	128	05-Mar-03	652	u		Sacrificed moribund	317.5		C	C
6831E435	1	M	M	Dosing	phase	09-Jun-03		16:42	128	30-May-03	738	s		Final phase sacrifice	355.1		C	C
6831E436	1	M	M	Dosing	phase	09-Jun-03		16:42	128	30-May-03	738	s		Final phase sacrifice	393.1		C	C
6831E437	1	M	M	Dosing	phase	09-Jun-03		16:43	128	27-May-03	735	s		Final phase sacrifice	398.3		C	C
6831E438	1	M	M	Dosing	phase	04-Apr-03		16:56	128	02-Apr-03	680	u		Sacrificed moribund	331.8		C	C
6831E439	1	M	M	Dosing	phase	23-May-02		14:25	128	22-May-02	365	u		Sacrificed moribund	417.3		C	C
6831E440	1	M	M	Dosing	phase	04-Jun-03		13:57	128	28-May-03	736	s		Final phase sacrifice	396.8		C	C
6831E441	1	M	M	Dosing	phase	10-Feb-03		10:25	8	05-Feb-03	624	u		Sacrificed moribund	366.9		C	C
6831E442	1	M	M	Dosing	phase	04-Jun-03		13:58	128	28-May-03	736	s		Final phase sacrifice	383.6		C	C
6831E443	1	M	M	Dosing	phase	09-Jun-03		16:43	128	29-May-03	737	s		Final phase sacrifice	404.7		C	C
6831E444	1	M	M	Dosing	phase	18-Mar-03		10:30	8	14-Mar-03	661	u		Sacrificed moribund	331.1		C	C
6831E445	1	M	M	Dosing	phase	10-Feb-03		10:21	8	05-Feb-03	624	u		Sacrificed moribund	369.9		C	C

Note: \* = pretest animal no. P = partial data. C = complete data. - = no data.

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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic		
Animal Number	Grp	Sex	Study Phase	Date and Time Data was Entered	Oper. No.	Date of Death	Phase Day	Death Day	Typ	Status	Term.	Body Wt. (g)	Ow	Grs
6831E446	1	M	Dosing phase	09-Jun-03 16:43	128	27-May-03	735		s	Final phase sacrifice		352.3	C	C
6831E447	1	M	Dosing phase	21-Feb-03 16:35	128	21-Feb-03	640		u	Sacrificed moribund		353.4	C	C
6831E448	1	M	Dosing phase	09-Jun-03 16:44	128	27-May-03	735		s	Final phase sacrifice		396.0	C	C
6831E449	1	M	Dosing phase	09-Jun-03 16:44	128	27-May-03	735		s	Final phase sacrifice		418.7	C	C
6831E450	1	M	Dosing phase	06-Jan-03 15:17	-1	24-Dec-02	581		u	Sacrificed moribund		440.7	C	C
6833F501	2	M	Dosing phase	25-Feb-03 13:17	8	24-Feb-03	643		u	Found Dead		357.8	C	C
6833F502	2	M	Dosing phase	04-Jun-03 14:18	128	30-May-03	738		s	Final phase sacrifice		384.3	C	C
6833F503	2	M	Dosing phase	20-May-03 12:06	128	20-May-03	728		u	Found Dead		328.8	C	C
6833F504	2	M	Dosing phase	04-Apr-03 17:09	128	04-Apr-03	682		u	Sacrificed moribund		344.8	C	C
6833F505	2	M	Dosing phase	04-Jun-03 14:18	128	30-May-03	738		s	Final phase sacrifice		400.1	C	C
6833F506	2	M	Dosing phase	21-Feb-03 16:40	128	21-Feb-03	640		u	Sacrificed moribund		299.2	C	C
6833F507	2	M	Dosing phase	18-Mar-03 10:30	8	14-Mar-03	661		u	Sacrificed moribund		367.4	C	C
6833F508	2	M	Dosing phase	09-Jun-03 16:49	128	27-May-03	735		s	Final phase sacrifice		387.3	C	C
6833F509	2	M	Dosing phase	07-Jan-03 10:09	-1	31-Dec-02	588		u	Sacrificed moribund		503.4	C	C
6833F510	2	M	Dosing phase	03-Mar-03 16:28	128	26-Feb-03	645		u	Sacrificed moribund		314.7	C	C
6833F511	2	M	Dosing phase	09-Jun-03 16:49	128	27-May-03	735		s	Final phase sacrifice		411.5	C	C
6833F512	2	M	Dosing phase	19-Sep-02 14:24	128	17-Sep-02	483		u	Sacrificed moribund		306.8	C	C
6833F513	2	M	Dosing phase	09-Jun-03 16:50	128	29-May-03	737		s	Final phase sacrifice		280.5	C	C
6833F514	2	M	Dosing phase	06-Jan-03 14:29	8	20-Dec-02	577		u	Sacrificed moribund		395.1	C	C
6833F515	2	M	Dosing phase	22-Nov-02 15:32	8	20-Nov-02	547		u	Sacrificed moribund		352.0	C	C
6833F516	2	M	Dosing phase	04-Jun-03 14:21	128	30-May-03	738		s	Final phase sacrifice		377.9	C	C
6833F517	2	M	Dosing phase	18-Feb-03 13:24	8	14-Feb-03	633		u	Sacrificed moribund		408.0	C	C
6833F518	2	M	Dosing phase	03-Mar-03 17:03	128	28-Feb-03	647		u	Sacrificed moribund		407.4	C	C
6833F519	2	M	Dosing phase	04-Jun-03 14:22	128	30-May-03	738		s	Final phase sacrifice		416.2	C	C
6833F520	2	M	Dosing phase	29-May-03 17:19	128	21-May-03	729		u	Sacrificed moribund		324.1	C	C
6833F521	2	M	Dosing phase	09-Jun-03 16:50	128	28-May-03	736		s	Final phase sacrifice		335.6	C	C
6833F522	2	M	Dosing phase	16-Apr-03 17:29	128	11-Apr-03	689		u	Sacrificed moribund		377.2	C	C
6833F523	2	M	Dosing phase	09-Jun-03 16:50	128	28-May-03	736		s	Final phase sacrifice		408.3	C	C
6833F524	2	M	Dosing phase	25-Jun-02 14:28	128	21-Jun-02	395		u	Found Dead		479.0	C	C
6833F525	2	M	Dosing phase	09-Jun-03 16:51	128	29-May-03	737		s	Final phase sacrifice		393.6	C	C
6833F526	2	M	Dosing phase	09-Jun-03 16:51	128	28-May-03	736		s	Final phase sacrifice		362.5	C	C
6833F527	2	M	Dosing phase	20-Dec-02 11:37	-1	19-Dec-02	576		u	Sacrificed moribund		357.5	C	C
6833F528	2	M	Dosing phase	19-Sep-02 14:32	128	12-Sep-02	478		u	Sacrificed moribund		309.8	C	C
6833F529	2	M	Dosing phase	30-Sep-02 09:14	128	20-Sep-02	486		u	Sacrificed moribund		444.5	C	C
6833F530	2	M	Dosing phase	07-May-03 17:31	128	29-Apr-03	707		u	Sacrificed moribund		329.6	C	C
6833F531	2	M	Dosing phase	21-Apr-03 17:13	128	17-Apr-03	695		u	Sacrificed moribund		355.2	C	C
6833F532	2	M	Dosing phase	05-Sep-02 08:59	8	28-Aug-02	463		u	Sacrificed moribund		314.7	C	C
6833F533	2	M	Dosing phase	07-Jan-03 10:09	-1	31-Dec-02	588		u	Sacrificed moribund		388.3	C	C
6833F534	2	M	Dosing phase	25-Feb-03 13:18	8	25-Feb-03	644		u	Sacrificed moribund		247.0	C	C
6833F535	2	M	Dosing phase	11-Jun-03 08:03	8	28-May-03	736		s	Final phase sacrifice		409.1	C	C
6833F536	2	M	Dosing phase	09-Jun-03 16:51	128	29-May-03	737		s	Final phase sacrifice		340.7	C	C
6833F537	2	M	Dosing phase	18-Feb-03 13:24	8	14-Feb-03	633		u	Sacrificed moribund		338.3	C	C
6833F538	2	M	Dosing phase	21-Apr-03 16:45	128	18-Apr-03	696		u	Sacrificed moribund		369.0	C	C
6833F539	2	M	Dosing phase	26-Mar-03 18:25	128	26-Mar-03	673		u	Sacrificed moribund		259.2	C	C
6833F540	2	M	Dosing phase	09-Aug-02 13:29	128	07-Aug-02	442		u	Sacrificed moribund		300.4	C	C

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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic		
Animal Number	Grp	Sex	Study Phase	Date Data was Entered	Time Oper.	No. Oper.	Death Date	Day	Typ	Status	Term.	Body Wt. (g)	Ow	Grs
6833F541	2	M	Dosing phase	11-Mar-03	13:09	8	07-Mar-03	654	u	Found Dead		379.4	C	C
6833F542	2	M	Dosing phase	09-Jun-03	16:51	128	27-May-03	735	s	Final phase sacrifice		365.4	C	C
6833F543	2	M	Dosing phase	06-Mar-03	16:53	128	05-Mar-03	652	u	Sacrificed moribund		325.3	C	C
6833F544	2	M	Dosing phase	25-Mar-03	12:47	128	21-Mar-03	668	u	Sacrificed moribund		352.7	C	C
6833F545	2	M	Dosing phase	13-Dec-02	11:59	8	15-Nov-02	542	u	Sacrificed moribund		367.1	C	C
6833F546	2	M	Dosing phase	09-May-03	13:16	8	29-Apr-03	707	u	Sacrificed moribund		350.7	C	C
6833F547	2	M	Dosing phase	04-Jun-03	14:27	128	30-May-03	738	s	Final phase sacrifice		366.3	C	C
6833F548	2	M	Dosing phase	14-Apr-03	16:50	128	09-Apr-03	687	u	Sacrificed moribund		472.7	C	C
6833F549	2	M	Dosing phase	21-Feb-03	16:31	128	20-Feb-03	639	u	Found Dead		288.9	C	C
6833F550	2	M	Dosing phase	09-Jun-03	16:52	128	27-May-03	735	s	Final phase sacrifice		368.4	C	C
6835G601	3	M	Dosing phase	04-Jun-03	14:28	128	28-May-03	736	s	Final phase sacrifice		382.8	C	C
6835G602	3	M	Dosing phase	09-Jun-03	16:45	128	29-May-03	737	s	Final phase sacrifice		368.3	C	C
6835G603	3	M	Dosing phase	09-Jun-03	16:45	128	27-May-03	735	s	Final phase sacrifice		375.0	C	C
6835G604	3	M	Dosing phase	11-Mar-03	13:02	8	10-Mar-03	657	u	Sacrificed moribund		334.8	C	C
6835G605	3	M	Dosing phase	09-Jun-03	16:45	128	29-May-03	737	s	Final phase sacrifice		354.7	C	C
6835G606	3	M	Dosing phase	07-Jan-03	10:08	-1	31-Dec-02	588	u	Sacrificed moribund		411.5	C	C
6835G607	3	M	Dosing phase	04-Jun-03	14:31	128	28-May-03	736	s	Final phase sacrifice		372.0	C	C
6835G608	3	M	Dosing phase	21-Apr-03	17:45	128	16-Apr-03	694	u	Sacrificed moribund		319.0	C	C
6835G609	3	M	Dosing phase	09-Jun-03	16:45	128	30-May-03	738	s	Final phase sacrifice		394.9	C	C
6835G610	3	M	Dosing phase	09-Jun-03	16:46	128	29-May-03	737	s	Final phase sacrifice		368.2	C	C
6835G611	3	M	Dosing phase	09-Aug-02	13:24	128	02-Aug-02	437	u	Sacrificed moribund		290.7	C	C
6835G612	3	M	Dosing phase	18-Feb-03	13:22	8	14-Feb-03	633	u	Sacrificed moribund		317.1	C	C
6835G613	3	M	Dosing phase	09-Jun-03	16:46	128	27-May-03	735	s	Final phase sacrifice		374.6	C	C
6835G614	3	M	Dosing phase	09-Jun-03	16:47	128	27-May-03	735	s	Final phase sacrifice		389.1	C	C
6835G615	3	M	Dosing phase	09-Jun-03	16:47	128	29-May-03	737	s	Final phase sacrifice		349.7	C	C
6835G616	3	M	Dosing phase	21-Apr-03	17:42	128	21-Apr-03	699	u	Sacrificed moribund		350.1	C	C
6835G617	3	M	Dosing phase	09-Jun-03	16:47	128	27-May-03	735	s	Final phase sacrifice		359.5	C	C
6835G618	3	M	Dosing phase	18-Feb-03	13:17	8	07-Feb-03	626	u	Sacrificed moribund		333.2	C	C
6835G619	3	M	Dosing phase	18-Feb-03	13:22	8	14-Feb-03	633	u	Sacrificed moribund		321.5	C	C
6835G620	3	M	Dosing phase	18-Feb-03	13:17	8	07-Feb-03	626	u	Sacrificed moribund		334.6	C	C
6835G621	3	M	Dosing phase	09-Jun-03	16:47	128	30-May-03	738	s	Final phase sacrifice		350.0	C	C
6835G622	3	M	Dosing phase	23-May-03	17:23	128	22-May-03	730	u	Sacrificed moribund		312.8	C	C
6835G623	3	M	Dosing phase	07-Nov-02	14:45	-1	06-Nov-02	533	u	Sacrificed moribund		381.3	C	C
6835G624	3	M	Dosing phase	25-Mar-03	13:10	128	19-Mar-03	666	u	Sacrificed moribund		310.6	C	C
6835G625	3	M	Dosing phase	04-Mar-03	13:40	8	04-Mar-03	651	u	Found Dead		323.9	C	C
6835G626	3	M	Dosing phase	01-Apr-03	11:44	-1	28-Mar-03	675	u	Sacrificed moribund		347.1	C	C
6835G627	3	M	Dosing phase	12-May-03	11:30	-1	05-Apr-03	683	u	Found Dead		372.8	C	C
6835G628	3	M	Dosing phase	09-Jun-03	16:48	128	30-May-03	738	s	Final phase sacrifice		378.2	C	C
6835G629	3	M	Dosing phase	06-Mar-03	16:14	128	06-Mar-03	653	u	Sacrificed moribund		316.6	C	C
6835G630	3	M	Dosing phase	09-Jun-03	16:48	128	27-May-03	735	s	Final phase sacrifice		366.6	C	C
6835G631	3	M	Dosing phase	21-Apr-03	17:18	128	17-Apr-03	695	u	Sacrificed moribund		362.6	C	C
6835G632	3	M	Dosing phase	14-Apr-03	16:58	128	09-Apr-03	687	u	Sacrificed moribund		323.8	C	C
6835G633	3	M	Dosing phase	16-Apr-03	17:30	128	11-Apr-03	689	u	Sacrificed moribund		420.2	C	C
6835G634	3	M	Dosing phase	09-Jun-03	16:48	128	27-May-03	735	s	Final phase sacrifice		396.2	C	C
6835G635	3	M	Dosing phase	18-Feb-03	13:18	8	07-Feb-03	626	u	Sacrificed moribund		307.0	C	C

Note: \* = pretest animal no. P = partial data. C = complete data. - = no data.

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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic	
Animal Number	Grp	Sex	Study Phase	Date Data was Entered	Time Oper.	No. No.	Death Day	Typ	Status	Term.	Body Wt. (g)	Ow	Grs
6835G636	3	M	Dosing phase	03-Feb-03	09:11	8	02-Feb-03	621	u	Found Dead	297.7	C	C
6835G637	3	M	Dosing phase	03-Mar-03	16:31	128	26-Feb-03	645	u	Sacrificed moribund	326.4	C	C
6835G638	3	M	Dosing phase	04-Jun-03	14:37	128	28-May-03	736	s	Final phase sacrifice	392.6	C	C
6835G639	3	M	Dosing phase	04-Jun-03	14:37	128	28-May-03	736	s	Final phase sacrifice	383.2	C	C
6835G640	3	M	Dosing phase	20-Dec-02	11:38	-1	19-Dec-02	576	u	Sacrificed moribund	291.4	C	C
6835G641	3	M	Dosing phase	18-Mar-03	10:31	8	14-Mar-03	661	u	Sacrificed moribund	349.9	C	C
6835G642	3	M	Dosing phase	25-Mar-03	12:52	128	21-Mar-03	668	u	Sacrificed moribund	334.1	C	C
6835G643	3	M	Dosing phase	28-Jan-03	08:47	-1	15-Jan-03	603	u	Sacrificed moribund	407.3	C	C
6835G644	3	M	Dosing phase	07-Nov-02	13:43	-1	22-Oct-02	518	u	Sacrificed moribund	353.4	C	C
6835G645	3	M	Dosing phase	21-May-03	16:39	128	21-May-03	729	u	Sacrificed moribund	323.0	C	C
6835G646	3	M	Dosing phase	21-Feb-03	16:51	128	21-Feb-03	640	u	Sacrificed moribund	356.0	C	C
6835G647	3	M	Dosing phase	04-Jun-03	14:38	128	28-May-03	736	s	Final phase sacrifice	401.1	C	C
6835G648	3	M	Dosing phase	09-Jun-03	16:48	128	29-May-03	737	s	Final phase sacrifice	268.6	C	C
6835G649	3	M	Dosing phase	09-Jun-03	16:49	128	29-May-03	737	s	Final phase sacrifice	349.5	C	C
6835G650	3	M	Dosing phase	10-Feb-03	10:31	8	06-Feb-03	625	u	Sacrificed moribund	341.9	C	C
6837H701	4	M	Dosing phase	21-Apr-03	17:26	128	17-Apr-03	695	u	Sacrificed moribund	253.6	C	C
6837H702	4	M	Dosing phase	04-Jun-03	14:03	128	27-May-03	735	s	Final phase sacrifice	382.2	C	C
6837H703	4	M	Dosing phase	18-Mar-03	10:28	8	14-Mar-03	661	u	Sacrificed moribund	435.2	C	C
6837H704	4	M	Dosing phase	09-Jun-03	16:52	128	30-May-03	738	s	Final phase sacrifice	397.1	C	C
6837H705	4	M	Dosing phase	09-Jun-03	16:53	128	30-May-03	738	s	Final phase sacrifice	399.2	C	C
6837H706	4	M	Dosing phase	09-Jun-03	16:53	128	30-May-03	738	s	Final phase sacrifice	356.7	C	C
6837H707	4	M	Dosing phase	06-Mar-03	16:46	128	05-Mar-03	652	u	Sacrificed moribund	353.8	C	C
6837H708	4	M	Dosing phase	09-Jun-03	16:53	128	29-May-03	737	s	Final phase sacrifice	346.6	C	C
6837H709	4	M	Dosing phase	11-Mar-03	13:03	8	10-Mar-03	657	u	Sacrificed moribund	362.3	C	C
6837H710	4	M	Dosing phase	14-Apr-03	16:28	128	10-Apr-03	688	u	Sacrificed moribund	305.8	C	C
6837H711	4	M	Dosing phase	29-Apr-03	17:32	128	25-Apr-03	703	u	Sacrificed moribund	358.8	C	C
6837H712	4	M	Dosing phase	03-Feb-03	10:27	8	22-Jan-03	610	u	Sacrificed moribund	348.6	C	C
6837H713	4	M	Dosing phase	09-May-03	16:21	128	08-May-03	716	u	Sacrificed moribund	301.4	C	C
6837H714	4	M	Dosing phase	09-Jun-03	16:53	128	28-May-03	736	s	Final phase sacrifice	335.0	C	C
6837H715	4	M	Dosing phase	10-Feb-03	09:48	-1	07-Feb-03	626	u	Sacrificed moribund	365.1	C	C
6837H716	4	M	Dosing phase	08-May-03	10:26	-1	05-Sep-02	471	u	Sacrificed moribund	411.5	C	C
6837H717	4	M	Dosing phase	09-Jun-03	16:54	128	29-May-03	737	s	Final phase sacrifice	371.8	C	C
6837H718	4	M	Dosing phase	20-May-03	12:52	8	19-May-03	727	u	Found Dead	349.8	C	C
6837H719	4	M	Dosing phase	07-Nov-02	14:36	-1	22-Oct-02	518	u	Sacrificed moribund	365.4	C	C
6837H720	4	M	Dosing phase	18-Feb-03	13:23	8	14-Feb-03	633	u	Sacrificed moribund	301.7	C	C
6837H721	4	M	Dosing phase	09-May-03	16:40	128	14-Apr-03	692	u	Sacrificed moribund	362.5	C	C
6837H722	4	M	Dosing phase	04-Jun-03	14:08	128	27-May-03	735	s	Final phase sacrifice	335.5	C	C
6837H723	4	M	Dosing phase	06-Jan-03	10:30	8	24-Dec-02	581	u	Sacrificed moribund	333.5	C	C
6837H724	4	M	Dosing phase	09-Jun-03	16:54	128	28-May-03	736	s	Final phase sacrifice	351.4	C	C
6837H725	4	M	Dosing phase	09-Jun-03	16:54	128	28-May-03	736	s	Final phase sacrifice	271.3	C	C
6837H726	4	M	Dosing phase	04-Jun-03	14:11	128	27-May-03	735	s	Final phase sacrifice	376.6	C	C
6837H727	4	M	Dosing phase	11-Mar-03	13:04	8	10-Mar-03	657	u	Sacrificed moribund	304.8	C	C
6837H728	4	M	Dosing phase	04-Jun-03	14:11	128	27-May-03	735	s	Final phase sacrifice	348.4	C	C
6837H729	4	M	Dosing phase	04-Jun-03	14:12	128	27-May-03	735	s	Final phase sacrifice	355.9	C	C
6837H730	4	M	Dosing phase	24-Apr-03	17:28	128	24-Apr-03	702	u	Sacrificed moribund	334.0	C	C

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Dead Animal Status List for All Animals  
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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic	
Animal Number	Grp	Sex	Study Phase	Date and Time Data was Entered	Oper. No.	Death Day	Phase Death Typ	Status	Term.	Body Wt. (g)	Ow	Grs	
6837H731	4	M	Dosing phase	06-Mar-03 16:50	128	05-Mar-03	652	u	Sacrificed moribund	304.6	C	C	
6837H732	4	M	Dosing phase	06-Jan-03 15:43	-1	30-Dec-02	587	u	Found Dead	378.8	C	C	
6837H733	4	M	Dosing phase	10-Jan-03 16:33	128	09-Jan-03	597	u	Sacrificed moribund	298.5	C	C	
6837H734	4	M	Dosing phase	24-Apr-03 17:29	128	24-Apr-03	702	u	Sacrificed moribund	316.5	C	C	
6837H735	4	M	Dosing phase	09-Jun-03 16:54	128	28-May-03	736	s	Final phase sacrifice	357.6	C	C	
6837H736	4	M	Dosing phase	09-Jun-03 16:55	128	29-May-03	737	s	Final phase sacrifice	371.5	C	C	
6837H737	4	M	Dosing phase	06-Mar-03 16:52	128	05-Mar-03	652	u	Sacrificed moribund	323.8	C	C	
6837H738	4	M	Dosing phase	24-Apr-03 17:31	128	24-Apr-03	702	u	Sacrificed moribund	330.4	C	C	
6837H739	4	M	Dosing phase	09-Jun-03 16:55	128	28-May-03	736	s	Final phase sacrifice	371.6	C	C	
6837H740	4	M	Dosing phase	21-Feb-03 16:55	128	21-Feb-03	640	u	Sacrificed moribund	315.5	C	C	
6837H741	4	M	Dosing phase	09-Jun-03 16:55	128	29-May-03	737	s	Final phase sacrifice	361.3	C	C	
6837H742	4	M	Dosing phase	10-Jan-03 16:24	128	09-Jan-03	597	u	Sacrificed moribund	307.8	C	C	
6837H743	4	M	Dosing phase	09-May-03 16:33	128	08-May-03	716	u	Sacrificed moribund	301.2	C	C	
6837H744	4	M	Dosing phase	04-Sep-02 13:41	128	03-Sep-02	469	u	Sacrificed moribund	296.4	C	C	
6837H745	4	M	Dosing phase	25-Mar-03 12:28	128	24-Mar-03	671	u	Sacrificed moribund	273.9	C	C	
6837H746	4	M	Dosing phase	03-Mar-03 16:40	128	26-Feb-03	645	u	Sacrificed moribund	287.8	C	C	
6837H747	4	M	Dosing phase	09-Jun-03 16:55	128	30-May-03	738	s	Final phase sacrifice	365.8	C	C	
6837H748	4	M	Dosing phase	06-Jan-03 15:36	-1	30-Dec-02	587	u	Sacrificed moribund	364.1	C	C	
6837H749	4	M	Dosing phase	09-Jun-03 16:56	128	29-May-03	737	s	Final phase sacrifice	328.0	C	C	
6837H750	4	M	Dosing phase	14-Apr-03 17:01	128	09-Apr-03	687	u	Sacrificed moribund	305.6	C	C	

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Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

H-2 Females

Lovelace Respiratory  
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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic		
Animal Number	Grp	Sex	Study Phase	Date Data was Entered	Time Entered	No. Oper.	Date of Phase Death	Day	Typ	Status	Term.	Body Wt. (g)	Ow	Gr
6832E451	1	F	Dosing phase	13-Jun-03	12:31	128	03-Jun-03	735	s	Final phase sacrifice		290.9	C	C
6832E452	1	F	Dosing phase	13-Jun-03	12:31	128	03-Jun-03	735	s	Final phase sacrifice		265.5	C	C
6832E453	1	F	Dosing phase	08-May-03	17:11	128	06-May-03	707	u	Sacrificed moribund		219.3	C	C
6832E454	1	F	Dosing phase	03-Feb-03	10:42	8	31-Jan-03	612	u	Found Dead		273.6	C	C
6832E455	1	F	Dosing phase	14-Apr-03	16:32	128	09-Apr-03	680	u	Sacrificed moribund		279.2	C	C
6832E456	1	F	Dosing phase	13-Jun-03	12:26	128	05-Jun-03	737	s	Final phase sacrifice		272.8	C	C
6832E457	1	F	Dosing phase	10-Jan-03	16:45	128	07-Jan-03	588	u	Sacrificed moribund		201.2	C	C
6832E458	1	F	Dosing phase	04-Jun-03	14:40	128	02-Jun-03	734	s	Final phase sacrifice		257.4	C	C
6832E459	1	F	Dosing phase	18-Feb-03	13:19	8	14-Feb-03	626	u	Sacrificed moribund		223.0	C	C
6832E460	1	F	Dosing phase	13-Jun-03	12:39	128	04-Jun-03	736	s	Final phase sacrifice		277.6	C	C
6832E461	1	F	Dosing phase	04-Jun-03	14:41	128	02-Jun-03	734	s	Final phase sacrifice		300.6	C	C
6832E462	1	F	Dosing phase	13-Jun-03	12:32	128	03-Jun-03	735	s	Final phase sacrifice		304.3	C	C
6832E463	1	F	Dosing phase	13-Jun-03	12:26	128	05-Jun-03	737	s	Final phase sacrifice		277.1	C	C
6832E464	1	F	Dosing phase	13-Jun-03	12:32	128	03-Jun-03	735	s	Final phase sacrifice		217.4	C	C
6832E465	1	F	Dosing phase	10-Jan-03	16:49	128	07-Jan-03	588	u	Sacrificed moribund		192.6	C	-
6832E466	1	F	Dosing phase	16-Apr-03	17:25	128	11-Apr-03	682	u	Sacrificed moribund		237.0	C	C
6832E467	1	F	Dosing phase	13-Jun-03	12:32	128	03-Jun-03	735	s	Final phase sacrifice		301.9	C	-
6832E468	1	F	Dosing phase	14-Apr-03	16:34	128	09-Apr-03	680	u	Sacrificed moribund		260.6	C	C
6832E469	1	F	Dosing phase	21-Feb-03	16:29	128	20-Feb-03	632	u	Sacrificed moribund		201.9	C	C
6832E470	1	F	Dosing phase	22-Nov-02	15:30	8	20-Nov-02	540	u	Sacrificed moribund		239.4	C	C
6832E471	1	F	Dosing phase	04-Apr-03	17:00	128	02-Apr-03	673	u	Sacrificed moribund		236.9	C	C
6832E472	1	F	Dosing phase	13-Jun-03	12:17	128	06-Jun-03	738	s	Final phase sacrifice		165.8	C	C
6832E473	1	F	Dosing phase	18-Mar-03	10:16	8	17-Mar-03	657	u	Found Dead		227.3	C	C
6832E474	1	F	Dosing phase	21-Feb-03	16:21	128	20-Feb-03	632	u	Sacrificed moribund		189.3	C	C
6832E475	1	F	Dosing phase	13-Jun-03	12:18	128	06-Jun-03	738	s	Final phase sacrifice		260.0	C	C
6832E476	1	F	Dosing phase	23-May-03	17:29	128	22-May-03	723	u	Sacrificed moribund		259.5	C	C
6832E477	1	F	Dosing phase	10-Jan-03	16:53	128	07-Jan-03	588	u	Found Dead		187.7	C	C
6832E478	1	F	Dosing phase	13-Jun-03	12:40	128	04-Jun-03	736	s	Final phase sacrifice		263.4	C	C
6832E479	1	F	Dosing phase	09-May-03	16:35	128	08-May-03	709	u	Sacrificed moribund		263.3	C	C
6832E480	1	F	Dosing phase	01-Apr-03	11:29	8	29-Mar-03	669	u	Found Dead		225.3	C	C
6832E481	1	F	Dosing phase	29-Apr-02	15:15	-1	10-Apr-02	316	u	Sacrificed moribund		203.4	C	C
6832E482	1	F	Dosing phase	11-Mar-03	13:09	8	07-Mar-03	647	u	Sacrificed moribund		250.2	C	C
6832E483	1	F	Dosing phase	13-Jun-03	12:40	128	04-Jun-03	736	s	Final phase sacrifice		271.8	C	C
6832E484	1	F	Dosing phase	25-Mar-03	13:02	128	19-Mar-03	659	u	Sacrificed moribund		212.8	C	C
6832E485	1	F	Dosing phase	03-Oct-02	16:19	128	24-Sep-02	483	u	Sacrificed moribund		211.2	C	C
6832E486	1	F	Dosing phase	13-Jun-03	12:40	128	04-Jun-03	736	s	Final phase sacrifice		265.4	C	-
6832E487	1	F	Dosing phase	10-Jan-03	17:01	128	08-Jan-03	589	u	Sacrificed moribund		226.0	C	C
6832E488	1	F	Dosing phase	14-Apr-03	16:26	128	10-Apr-03	681	u	Sacrificed moribund		220.2	C	C
6832E489	1	F	Dosing phase	13-Jun-03	12:26	128	05-Jun-03	737	s	Final phase sacrifice		263.9	C	C
6832E490	1	F	Dosing phase	13-Jun-03	12:26	128	05-Jun-03	737	s	Final phase sacrifice		223.6	C	C
6832E491	1	F	Dosing phase	09-Apr-03	16:56	128	07-Apr-03	678	u	Sacrificed moribund		217.6	C	C
6832E492	1	F	Dosing phase	29-Oct-02	15:49	8	23-Oct-02	512	u	Sacrificed moribund		186.5	C	C
6832E493	1	F	Dosing phase	13-Jun-03	12:18	128	06-Jun-03	738	s	Final phase sacrifice		230.8	C	C
6832E494	1	F	Dosing phase	25-Feb-03	13:20	8	25-Feb-03	637	u	Sacrificed moribund		276.5	C	C
6832E495	1	F	Dosing phase	13-Jun-03	12:18	128	06-Jun-03	738	s	Final phase sacrifice		301.6	C	C

Note: \* = pretest animal no. P = partial data. C = complete data. - = no data.

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Dead Animal Status List for All Animals  
Study number: FY01013F

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Animal Number	Grp	Sex	Study Phase	Study start date: 30-May-01			Inhalation/whole-bdy/Chronic		Wt. (g)	Ow	Grs	
				Date and Time Oper.	Date of Phase Death	Death Day	Typ	Status				
6832E496	1	F	Dosing phase	25-Feb-03	13:21	8	25-Feb-03	637	u	Sacrificed moribund	200.1	C
6832E497	1	F	Dosing phase	13-Jun-03	12:18	128	06-Jun-03	738	s	Final phase sacrifice	269.1	C
6832E498	1	F	Dosing phase	04-Jun-03	14:42	128	02-Jun-03	734	s	Final phase sacrifice	254.1	C
6832E499	1	F	Dosing phase	12-Dec-02	13:52	128	12-Dec-02	562	u	Sacrificed moribund	248.6	C
6832E500	1	F	Dosing phase	04-Jun-03	14:42	128	02-Jun-03	734	s	Final phase sacrifice	303.6	C
6834F51	2	F	Dosing phase	04-Jun-03	14:43	128	02-Jun-03	734	s	Final phase sacrifice	280.6	C
6834F52	2	F	Dosing phase	06-Jan-03	14:54	-1	24-Dec-02	574	u	Sacrificed moribund	229.7	C
6834F53	2	F	Dosing phase	13-Jun-03	12:32	128	03-Jun-03	735	s	Final phase sacrifice	278.5	C
6834F54	2	F	Dosing phase	13-Jun-03	12:40	128	04-Jun-03	736	s	Final phase sacrifice	281.2	C
6834F55	2	F	Dosing phase	13-Jun-03	12:32	128	03-Jun-03	735	s	Final phase sacrifice	297.4	C
6834F56	2	F	Dosing phase	04-Apr-03	16:48	128	01-Apr-03	672	u	Sacrificed moribund	225.7	C
6834F57	2	F	Dosing phase	13-Jun-03	12:27	128	05-Jun-03	737	s	Final phase sacrifice	264.6	C
6834F58	2	F	Dosing phase	13-Jun-03	12:27	128	05-Jun-03	737	s	Final phase sacrifice	263.2	C
6834F59	2	F	Dosing phase	13-Jun-03	12:40	128	04-Jun-03	736	s	Final phase sacrifice	245.3	C
6834F60	2	F	Dosing phase	04-Jun-03	14:44	128	02-Jun-03	734	s	Final phase sacrifice	283.1	C
6834F61	2	F	Dosing phase	04-Jun-03	14:45	128	02-Jun-03	734	s	Final phase sacrifice	277.0	C
6834F62	2	F	Dosing phase	03-Oct-02	16:23	128	29-Sep-02	488	u	Sacrificed moribund	238.4	C
6834F63	2	F	Dosing phase	13-Jun-03	12:33	128	03-Jun-03	735	s	Final phase sacrifice	288.7	C
6834F64	2	F	Dosing phase	13-Jun-03	12:19	128	06-Jun-03	738	s	Final phase sacrifice	221.5	C
6834F65	2	F	Dosing phase	03-Mar-03	17:20	128	28-Feb-03	640	u	Sacrificed moribund	268.4	C
6834F66	2	F	Dosing phase	07-Nov-02	13:05	-1	19-Oct-02	508	u	Sacrificed moribund	226.8	C
6834F67	2	F	Dosing phase	12-May-03	10:54	8	09-May-03	710	u	Sacrificed moribund	282.2	C
6834F68	2	F	Dosing phase	10-Jan-03	17:06	128	08-Jan-03	589	u	Sacrificed moribund	203.6	C
6834F69	2	F	Dosing phase	13-Jun-03	12:33	128	03-Jun-03	735	s	Final phase sacrifice	312.4	C
6834F70	2	F	Dosing phase	13-Jun-03	12:41	128	04-Jun-03	736	s	Final phase sacrifice	268.6	C
6834F71	2	F	Dosing phase	23-May-03	17:27	128	22-May-03	723	u	Sacrificed moribund	211.9	C
6834F72	2	F	Dosing phase	21-Apr-03	17:32	128	17-Apr-03	688	u	Sacrificed moribund	256.4	C
6834F73	2	F	Dosing phase	13-Jun-03	12:19	128	06-Jun-03	738	s	Final phase sacrifice	258.5	C
6834F74	2	F	Dosing phase	04-Jun-03	14:45	128	02-Jun-03	734	s	Final phase sacrifice	265.2	C
6834F75	2	F	Dosing phase	13-Jun-03	12:33	128	03-Jun-03	735	s	Final phase sacrifice	309.2	C
6834F76	2	F	Dosing phase	16-Apr-03	17:32	128	14-Apr-03	685	u	Found Dead	212.6	C
6834F77	2	F	Dosing phase	08-May-03	16:53	128	07-May-03	708	u	Sacrificed moribund	248.1	C
6834F78	2	F	Dosing phase	25-Mar-03	12:36	128	24-Mar-03	664	u	Sacrificed moribund	218.3	C
6834F79	2	F	Dosing phase	13-Jun-03	12:33	128	03-Jun-03	735	s	Final phase sacrifice	299.6	C
6834F80	2	F	Dosing phase	04-Jun-03	14:46	128	02-Jun-03	734	s	Final phase sacrifice	296.3	C
6834F81	2	F	Dosing phase	28-May-03	17:04	128	28-May-03	729	u	Sacrificed moribund	207.5	C
6834F82	2	F	Dosing phase	25-Feb-03	13:19	8	24-Feb-03	636	u	Sacrificed moribund	248.6	C
6834F83	2	F	Dosing phase	04-Jun-03	14:46	128	02-Jun-03	734	s	Final phase sacrifice	276.2	C
6834F84	2	F	Dosing phase	13-Jun-03	12:41	128	04-Jun-03	736	s	Final phase sacrifice	258.5	C
6834F85	2	F	Dosing phase	13-Jun-03	12:19	128	06-Jun-03	738	s	Final phase sacrifice	234.6	C
6834F86	2	F	Dosing phase	13-Jun-03	12:27	128	05-Jun-03	737	s	Final phase sacrifice	286.9	C
6834F87	2	F	Dosing phase	13-Jun-03	12:41	128	04-Jun-03	736	s	Final phase sacrifice	282.6	C
6834F88	2	F	Dosing phase	13-Jun-03	12:19	128	06-Jun-03	738	s	Final phase sacrifice	267.9	C
6834F89	2	F	Dosing phase	14-Apr-03	16:36	128	09-Apr-03	680	u	Sacrificed moribund	267.9	C
6834F90	2	F	Dosing phase	21-May-02	11:05	8	14-May-02	350	u	Sacrificed moribund	234.0	C

Note: \* = pretest animal no. P = partial data. C = complete data. - = no data.

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Dead Animal Status List for All Animals  
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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic		
Animal Number	Grp	Sex	Study Phase	Date and Time Data was Entered	Oper. No.	Date of Death	Phase Day	Death Day	Typ	Status	Term.	Body Wt. (g)	Ow	Grs
6834F591	2	F	Dosing phase	13-Jun-03 12:27	128	05-Jun-03	737		s	Final phase sacrifice		256.1	C	C
6834F592	2	F	Dosing phase	13-Jun-03 12:41	128	04-Jun-03	736		s	Final phase sacrifice		274.7	C	C
6834F593	2	F	Dosing phase	28-May-03 16:49	128	24-May-03	725		u	Found Dead		257.4	C	C
6834F594	2	F	Dosing phase	10-Jan-03 17:11	128	08-Jan-03	589		u	Sacrificed moribund		299.0	C	C
6834F595	2	F	Dosing phase	03-Oct-02 16:30	128	29-Sep-02	488		u	Sacrificed moribund		214.2	C	C
6834F596	2	F	Dosing phase	04-Jun-03 14:47	128	02-Jun-03	734		s	Final phase sacrifice		262.2	C	C
6834F597	2	F	Dosing phase	13-Jun-03 12:27	128	05-Jun-03	737		s	Final phase sacrifice		280.2	C	-
6834F598	2	F	Dosing phase	13-Jun-03 12:19	128	06-Jun-03	738		s	Final phase sacrifice		252.7	C	-
6834F599	2	F	Dosing phase	12-Dec-02 13:17	128	11-Dec-02	561		u	Sacrificed moribund		200.0	C	C
6834F600	2	F	Dosing phase	13-Jun-03 12:27	128	05-Jun-03	737		s	Final phase sacrifice		280.6	C	C
6836G651	3	F	Dosing phase	04-Jun-03 14:47	128	02-Jun-03	734		s	Final phase sacrifice		262.8	C	C
6836G652	3	F	Dosing phase	04-Jun-03 14:48	128	02-Jun-03	734		s	Final phase sacrifice		277.7	C	C
6836G653	3	F	Dosing phase	03-Oct-02 16:36	128	30-Sep-02	489		u	Sacrificed moribund		207.9	C	C
6836G654	3	F	Dosing phase	13-Jun-03 12:22	128	06-Jun-03	738		s	Final phase sacrifice		238.3	C	C
6836G655	3	F	Dosing phase	13-Jun-03 12:33	128	05-Jun-03	737		s	Final phase sacrifice		259.9	C	C
6836G656	3	F	Dosing phase	13-Jun-03 12:33	128	03-Jun-03	735		s	Final phase sacrifice		277.7	C	-
6836G657	3	F	Dosing phase	13-Jun-03 12:22	128	06-Jun-03	738		s	Final phase sacrifice		263.5	C	C
6836G658	3	F	Dosing phase	13-Jun-03 12:41	128	04-Jun-03	736		s	Final phase sacrifice		274.9	C	-
6836G659	3	F	Dosing phase	29-May-03 16:58	128	29-May-03	730		u	Sacrificed moribund		232.0	C	C
6836G660	3	F	Dosing phase	04-Jun-03 14:48	128	02-Jun-03	734		s	Final phase sacrifice		295.8	C	C
6836G661	3	F	Dosing phase	13-Jun-03 12:33	128	03-Jun-03	735		s	Final phase sacrifice		242.0	C	C
6836G662	3	F	Dosing phase	13-Jun-03 12:34	128	03-Jun-03	735		s	Final phase sacrifice		234.8	C	-
6836G663	3	F	Dosing phase	13-Jun-03 12:28	128	05-Jun-03	737		s	Final phase sacrifice		258.5	C	C
6836G664	3	F	Dosing phase	16-Dec-02 14:23	8	12-Dec-02	562		u	Sacrificed moribund		223.0	C	C
6836G665	3	F	Dosing phase	07-Nov-02 13:57	-1	22-Oct-02	511		u	Found Dead		191.0	C	C
6836G666	3	F	Dosing phase	13-Jun-03 12:28	128	05-Jun-03	737		s	Final phase sacrifice		226.0	C	C
6836G667	3	F	Dosing phase	13-Jun-03 12:34	128	03-Jun-03	735		s	Final phase sacrifice		271.4	C	C
6836G668	3	F	Dosing phase	13-Jun-03 12:22	128	06-Jun-03	738		s	Final phase sacrifice		212.8	C	C
6836G669	3	F	Dosing phase	13-Jun-03 12:22	128	06-Jun-03	738		s	Final phase sacrifice		256.3	C	C
6836G670	3	F	Dosing phase	04-Jun-03 14:49	128	02-Jun-03	734		s	Final phase sacrifice		267.4	C	C
6836G671	3	F	Dosing phase	12-Dec-02 13:42	128	28-Nov-02	548		u	Found Dead		240.6	C	C
6836G672	3	F	Dosing phase	04-Jun-03 14:49	128	02-Jun-03	734		s	Final phase sacrifice		283.2	C	C
6836G673	3	F	Dosing phase	13-Jun-03 12:42	128	04-Jun-03	736		s	Final phase sacrifice		242.1	C	C
6836G674	3	F	Dosing phase	13-Jun-03 12:34	128	03-Jun-03	735		s	Final phase sacrifice		287.6	C	C
6836G675	3	F	Dosing phase	13-Jun-03 12:42	128	04-Jun-03	736		s	Final phase sacrifice		257.6	C	C
6836G676	3	F	Dosing phase	18-Mar-03 10:18	8	14-Mar-03	654		u	Sacrificed moribund		232.8	C	C
6836G677	3	F	Dosing phase	13-Jun-03 12:23	128	06-Jun-03	738		s	Final phase sacrifice		268.4	C	C
6836G678	3	F	Dosing phase	29-Apr-03 17:36	128	25-Apr-03	696		u	Sacrificed moribund		235.4	C	C
6836G679	3	F	Dosing phase	18-Mar-03 10:20	8	14-Mar-03	654		u	Sacrificed moribund		217.4	C	C
6836G680	3	F	Dosing phase	06-Mar-03 17:17	128	05-Mar-03	645		u	Sacrificed moribund		213.1	C	C
6836G681	3	F	Dosing phase	13-Jun-03 12:42	128	04-Jun-03	736		s	Final phase sacrifice		272.3	C	C
6836G682	3	F	Dosing phase	11-Mar-03 13:10	8	07-Mar-03	647		u	Sacrificed moribund		223.1	C	C
6836G683	3	F	Dosing phase	08-May-03 16:34	128	01-May-03	702		u	Sacrificed moribund		240.7	C	C
6836G684	3	F	Dosing phase	13-Jun-03 12:28	128	05-Jun-03	737		s	Final phase sacrifice		287.6	C	C
6836G685	3	F	Dosing phase	22-Nov-02 15:31	8	20-Nov-02	540		u	Sacrificed moribund		186.6	C	C

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Animal Number	Grp	Sex	Study Phase	Study start date: 30-May-01			Inhalation/whole-bdy/Chronic							
				Date and Time Entered	Oper. No.	Date of Phase Death	Day	Typ	Status	Term.	Body Wt. (g)	Ow	Grs	
6836G686	3	F	Dosing phase	04-Jun-03	14:50	128	02-Jun-03	734	s	Final phase sacrifice		231.0	C	C
6836G687	3	F	Dosing phase	14-Apr-03	16:40	128	09-Apr-03	680	u	Sacrificed moribund		223.0	C	C
6836G688	3	F	Dosing phase	26-Mar-03	18:27	128	26-Mar-03	666	u	Sacrificed moribund		246.4	C	C
6836G689	3	F	Dosing phase	13-Jun-03	12:42	128	04-Jun-03	736	s	Final phase sacrifice		241.1	C	C
6836G690	3	F	Dosing phase	13-Jun-03	12:42	128	04-Jun-03	736	s	Final phase sacrifice		236.8	C	C
6836G691	3	F	Dosing phase	30-Aug-01	12:40	128	28-Aug-01	91	u	Sacrificed moribund		156.8	C	-
6836G692	3	F	Dosing phase	13-Jun-03	12:23	128	06-Jun-03	738	s	Final phase sacrifice		244.1	C	C
6836G693	3	F	Dosing phase	25-Mar-03	13:12	128	18-Mar-03	658	u	Found Dead		260.8	C	C
6836G694	3	F	Dosing phase	13-Jun-03	12:28	128	05-Jun-03	737	s	Final phase sacrifice		255.8	C	C
6836G695	3	F	Dosing phase	25-Mar-03	12:38	128	21-Mar-03	661	u	Sacrificed moribund		204.4	C	C
6836G696	3	F	Dosing phase	30-Aug-01	12:39	128	28-Aug-01	91	u	Sacrificed moribund		175.2	C	-
6836G697	3	F	Dosing phase	13-Jun-03	12:34	128	03-Jun-03	735	s	Final phase sacrifice		252.0	C	C
6836G698	3	F	Dosing phase	14-Feb-03	11:42	8	13-Feb-03	625	u	Sacrificed moribund		226.0	C	C
6836G699	3	F	Dosing phase	24-Sep-01	14:00	128	20-Sep-01	114	u	Sacrificed moribund		153.9	C	C
6836G700	3	F	Dosing phase	13-Jun-03	12:29	128	05-Jun-03	737	s	Final phase sacrifice		209.6	C	C
6838H751	4	F	Dosing phase	25-Mar-03	13:04	128	19-Mar-03	659	u	Sacrificed moribund		197.9	C	C
6838H752	4	F	Dosing phase	21-Apr-03	16:58	128	16-Apr-03	687	u	Sacrificed moribund		216.2	C	C
6838H753	4	F	Dosing phase	03-Jun-03	15:49	128	14-May-03	715	u	Sacrificed moribund		188.8	C	C
6838H754	4	F	Dosing phase	13-Jun-03	12:29	128	05-Jun-03	737	s	Final phase sacrifice		267.9	C	C
6838H755	4	F	Dosing phase	04-Jun-03	14:51	128	02-Jun-03	734	s	Final phase sacrifice		229.6	C	C
6838H756	4	F	Dosing phase	13-Jun-03	12:42	128	04-Jun-03	736	s	Final phase sacrifice		250.7	C	C
6838H757	4	F	Dosing phase	09-May-03	13:10	8	30-Apr-03	701	u	Sacrificed moribund		183.6	C	C
6838H758	4	F	Dosing phase	13-Jun-03	12:23	128	06-Jun-03	738	s	Final phase sacrifice		247.8	C	C
6838H759	4	F	Dosing phase	13-Jun-03	12:42	128	04-Jun-03	736	s	Final phase sacrifice		230.5	C	C
6838H760	4	F	Dosing phase	13-Jun-03	12:34	128	03-Jun-03	735	s	Final phase sacrifice		245.1	C	-
6838H761	4	F	Dosing phase	13-Jun-03	12:35	128	03-Jun-03	735	s	Final phase sacrifice		244.4	C	C
6838H762	4	F	Dosing phase	13-Jun-03	12:29	128	05-Jun-03	737	s	Final phase sacrifice		237.7	C	C
6838H763	4	F	Dosing phase	03-Oct-02	16:53	128	01-Oct-02	490	u	Sacrificed moribund		229.8	C	C
6838H764	4	F	Dosing phase	07-Nov-02	14:43	-1	06-Nov-02	526	u	Sacrificed moribund		186.0	C	C
6838H765	4	F	Dosing phase	13-Jun-03	12:29	128	05-Jun-03	737	s	Final phase sacrifice		259.5	C	-
6838H766	4	F	Dosing phase	19-Sep-02	14:00	128	19-Sep-02	478	u	Sacrificed moribund		198.3	C	C
6838H767	4	F	Dosing phase	13-Jun-03	12:35	128	03-Jun-03	735	s	Final phase sacrifice		251.5	C	C
6838H768	4	F	Dosing phase	13-Jun-03	12:44	128	04-Jun-03	736	s	Final phase sacrifice		242.4	C	C
6838H769	4	F	Dosing phase	13-Jun-03	12:43	128	04-Jun-03	736	s	Final phase sacrifice		232.5	C	C
6838H770	4	F	Dosing phase	25-Mar-03	12:41	128	21-Mar-03	661	u	Sacrificed moribund		198.8	C	C
6838H771	4	F	Dosing phase	13-Jun-03	12:23	128	06-Jun-03	738	s	Final phase sacrifice		217.7	C	C
6838H772	4	F	Dosing phase	28-May-03	16:54	128	28-May-03	729	u	Sacrificed moribund		185.1	C	C
6838H773	4	F	Dosing phase	04-Jun-03	14:51	128	02-Jun-03	734	s	Final phase sacrifice		256.8	C	C
6838H774	4	F	Dosing phase	03-Oct-02	16:34	128	30-Sep-02	489	u	Sacrificed moribund		190.1	C	C
6838H775	4	F	Dosing phase	21-Apr-03	17:36	128	17-Apr-03	688	u	Sacrificed moribund		191.6	C	C
6838H776	4	F	Dosing phase	13-Jun-03	12:35	128	03-Jun-03	735	s	Final phase sacrifice		261.4	C	C
6838H777	4	F	Dosing phase	13-Jun-03	12:35	128	03-Jun-03	735	s	Final phase sacrifice		242.5	C	C
6838H778	4	F	Dosing phase	13-Jun-03	12:35	128	03-Jun-03	735	s	Final phase sacrifice		218.1	C	C
6838H779	4	F	Dosing phase	04-Jun-03	14:52	128	02-Jun-03	734	s	Final phase sacrifice		265.1	C	C
6838H780	4	F	Dosing phase	04-Jun-03	14:52	128	02-Jun-03	734	s	Final phase sacrifice		236.3	C	C

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic	
Animal Number	Grp	Sex	Study Phase	Date and Time Data was Entered	Oper. No.	Death Date	Day	Typ	Status	Term.	Body Wt. (g)	Ow	Grs
6838H781	4	F	Dosing phase	13-Jun-03 12:43	128	04-Jun-03	736	s	Final phase sacrifice		244.3	C	-
6838H782	4	F	Dosing phase	13-Jun-03 12:35	128	03-Jun-03	735	s	Final phase sacrifice		240.3	C	C
6838H783	4	F	Dosing phase	12-May-03 10:51	8	09-May-03	710	u	Sacrificed moribund		196.1	C	C
6838H784	4	F	Dosing phase	13-Jun-03 12:23	128	06-Jun-03	738	s	Final phase sacrifice		202.7	C	-
6838H785	4	F	Dosing phase	19-Sep-02 14:26	128	17-Sep-02	476	u	Sacrificed moribund		230.0	C	C
6838H786	4	F	Dosing phase	19-May-03 16:24	128	15-May-03	716	u	Found Dead		240.4	C	C
6838H787	4	F	Dosing phase	13-Jun-03 12:43	128	04-Jun-03	736	s	Final phase sacrifice		266.0	C	C
6838H788	4	F	Dosing phase	13-Jun-03 12:24	128	06-Jun-03	738	s	Final phase sacrifice		244.1	C	C
6838H789	4	F	Dosing phase	13-Jun-03 12:29	128	05-Jun-03	737	s	Final phase sacrifice		247.7	C	-
6838H790	4	F	Dosing phase	04-Jun-03 14:53	128	02-Jun-03	734	s	Final phase sacrifice		238.2	C	C
6838H791	4	F	Dosing phase	13-Jun-03 12:24	128	06-Jun-03	738	s	Final phase sacrifice		265.6	C	C
6838H792	4	F	Dosing phase	29-May-03 17:01	128	29-May-03	730	u	Sacrificed moribund		199.7	C	C
6838H793	4	F	Dosing phase	13-Jun-03 12:24	128	06-Jun-03	738	s	Final phase sacrifice		231.8	C	C
6838H794	4	F	Dosing phase	13-Jun-03 12:24	128	06-Jun-03	738	s	Final phase sacrifice		258.7	C	-
6838H795	4	F	Dosing phase	19-May-03 16:22	128	15-May-03	716	u	Found Dead		219.8	C	C
6838H796	4	F	Dosing phase	13-Jun-03 12:44	128	04-Jun-03	736	s	Final phase sacrifice		240.6	C	-
6838H797	4	F	Dosing phase	28-Jan-03 09:17	8	24-Jan-03	605	u	Sacrificed moribund		223.3	C	C
6838H798	4	F	Dosing phase	13-Jun-03 12:30	128	05-Jun-03	737	s	Final phase sacrifice		256.0	C	C
6838H799	4	F	Dosing phase	13-Jun-03 12:30	128	05-Jun-03	737	s	Final phase sacrifice		215.8	C	C
6838H800	4	F	Dosing phase	04-Jun-03 14:54	128	02-Jun-03	734	s	Final phase sacrifice		247.9	C	C

Note: \* = pretest animal no. P = partial data. C = complete data. - = no data.

APPENDIX I

INDIVIDUAL ANIMAL IN-LIFE BODY WEIGHTS

- I-1 Males – Individual Animal Body Weight Data
- I-2 Males – Summary Statistics - Body Weight Data
- I-3 Females – Individual Animal Body Weight Data
- I-4 Females – Summary Statistics - Body Weight Data

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

I-1 Males

Individual Animal Body Weight Data



Lovelace Respiratory  
Research Institute

Animal body weights in (g)  
Study number: FY01013M

Printed: 14-Jun-04  
Page: 2

Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic			
Animal	Group	16!	7"	14	21	28	35	42	49	56	63	70	77	84	
						Male			Female						
6831E442	1	181.6	201.5	214.8	236.0	259.6	273.0	281.7	291.7	298.6	311.4	320.4	334.7	336.5	
6831E443		183.5	193.4	209.5	229.2	238.9	249.6	255.1	264.8	275.0	284.8	288.1	295.8	301.8	
6831E444		174.0	179.3	196.3	215.8	234.1	237.7	247.4	259.1	273.4	279.7	281.2	290.1	297.6	
6831E445		203.3	216.3	239.3	259.1	270.6	282.0	286.3	299.0	310.8	314.9	319.3	330.9	335.3	
6831E446		178.6	186.8	203.5	228.4	246.2	259.1	264.2	277.7	295.2	304.9	314.3	327.1	334.3	
6831E447		186.3	194.2	212.4	221.3	234.5	243.3	257.6	274.2	283.1	290.6	296.5	308.4	312.0	
6831E448		170.9	173.6	185.4	192.3	203.9	213.6	219.9	233.8	248.8	255.5	266.1	276.1	284.3	
6831E449		196.8	210.3	224.2	245.0	265.7	279.7	288.1	299.3	312.4	315.9	322.7	335.7	346.3	
6831E450		179.5	187.7	197.7	213.0	225.9	237.9	243.4	261.9	268.1	276.9	282.2	294.3	299.4	
	(n)	50	50	50	50	50	50	50	50	50	50	50	50	50	
	Means	184.4	188.2	207.5	226.5	239.7	251.2	259.1	272.7	283.1	290.5	297.6	309.1	314.7	
	Sdevs	7.8	11.5	12.9	14.3	16.1	17.3	18.2	17.8	17.5	18.3	18.4	19.0	18.8	
6833F501	2	185.6	197.1	211.5	232.0	245.7	258.3	266.0	277.7	287.4	298.7	306.8	317.3	321.8	
6833F502		177.0	196.2	212.2	232.3	245.7	258.3	266.8	279.2	283.2	285.2	293.9	300.6	307.8	
6833F503		174.8	188.8	203.6	228.5	241.6	251.6	262.6	273.0	279.6	285.9	290.2	299.7	308.6	
6833F504		190.4	204.5	222.4	241.0	254.8	265.0	275.5	286.5	299.3	303.6	316.4	323.9	327.0	
6833F505		188.7	206.6	221.9	241.1	254.7	266.8	277.5	287.9	296.2	303.6	318.0	328.7	337.4	
6833F506		191.3	200.2	221.2	238.9	251.5	268.4	271.3	279.0	287.1	290.5	302.7	306.3	311.9	
6833F507		172.5	174.2	182.9	196.7	204.5	212.3	218.9	237.1	241.6	252.5	259.3	274.3	277.4	
6833F508		188.3	194.1	203.0	222.0	234.7	249.5	260.3	272.6	282.4	289.8	302.0	309.6	314.7	
6833F509		192.1	202.3	219.2	235.7	253.0	263.1	271.2	287.2	292.8	300.0	312.7	320.6	324.1	
6833F510		181.7	196.5	213.1	230.5	241.5	253.7	264.9	275.7	280.9	287.2	291.7	300.6	305.5	
6833F511		183.9	199.7	215.8	234.7	257.6	266.7	280.5	297.2	302.4	311.2	320.3	327.3	336.7	
6833F512		184.6	188.1	200.6	215.3	227.8	239.4	244.2	261.4	265.1	269.4	277.6	290.8	293.9	
6833F513		166.0	168.6	177.6	190.2	205.0	214.4	228.7	244.2	253.1	258.6	266.8	270.2	278.8	
6833F514		164.5	174.7	189.9	209.1	223.6	226.0	239.8	253.4	265.8	273.4	280.8	293.2	299.5	
6833F515		177.8	196.2	212.7	229.2	243.1	253.0	263.1	278.8	287.8	292.4	298.0	316.3	327.6	
6833F516		192.6	202.1	215.5	232.0	248.8	260.8	270.5	288.0	291.5	298.1	303.1	315.5	324.0	
6833F517		182.6	196.1	212.2	230.7	245.3	258.3	268.6	282.7	291.7	295.2	304.7	313.3	315.0	
6833F518		171.9	183.2	196.8	214.5	234.1	247.0	260.1	273.1	284.9	293.0	300.4	312.8	318.2	
6833F519		192.3	207.3	229.9	247.4	260.8	274.0	284.9	294.8	308.8	333.7	326.5	338.7	342.9	
6833F520		187.2	203.9	223.8	243.1	254.0	267.8	276.7	287.4	300.0	323.7	313.2	323.3	327.0	
6833F521		180.5	196.5	215.2	228.0	242.3	254.5	263.1	273.2	280.8	302.1	295.0	300.7	305.9	
6833F522		176.6	186.6	201.4	220.9	225.4	237.9	250.0	257.5	266.7	294.3	288.7	291.5	304.2	
6833F523		179.2	184.4	198.2	207.7	214.4	222.7	236.3	250.2	260.8	285.6	277.4	284.1	299.1	
6833F524		197.2	217.8	236.2	255.2	265.7	283.1	290.1	303.5	308.0	332.3	326.9	336.5	342.8	
6833F525		185.7	198.7	219.0	243.5	255.5	270.7	279.5	292.2	300.2	327.0	324.3	330.0	335.6	
6833F526		182.1	190.7	213.4	232.0	245.5	255.0	267.0	276.2	286.9	306.8	297.6	303.6	311.9	
6833F527		163.5	176.8	190.8	208.9	222.3	233.0	239.1	247.3	253.8	275.7	263.2	277.5	287.1	
6833F528		171.2	178.2	186.7	208.5	223.6	234.4	243.2	253.7	263.8	290.5	278.9	286.7	297.1	

Note: ! = Pretest phase; " = Dosing phase

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Animal body weights in (g)  
Study number: FY01013M

Printed: 14-Jun-04  
Page: 3

Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic			
Animal	Group	16!	7"	14	21	28	35	42	49	56	63	70	77	84	
		M a l e													
		A n i m a l s													
6833F529	2	181.3	202.0	210.7	225.9	242.2	251.8	261.9	277.0	285.5	295.2	305.0	312.7	315.7	
6833F530		189.4	196.2	209.5	223.1	238.2	247.5	258.2	272.7	281.3	284.3	293.6	301.1	311.6	
6833F531		157.2	179.8	204.5	220.9	237.4	248.2	261.6	274.3	285.8	292.1	306.8	315.2	322.2	
6833F532		183.2	199.3	211.4	227.1	236.0	244.0	250.1	264.5	271.9	276.6	282.9	290.3	298.3	
6833F533		189.6	211.2	228.5	242.9	255.6	269.6	273.3	278.0	288.1	293.6	299.3	308.1	310.4	
6833F534		163.3	172.5	177.6	191.1	203.8	213.0	222.8	235.1	242.5	250.1	262.5	269.9	274.6	
6833F535		190.0	199.6	150.3	203.6	231.6	255.8	267.8	278.0	292.0	302.8	311.4	320.6	325.4	
6833F536		176.8	186.5	203.5	219.3	236.5	244.7	255.6	264.4	273.3	296.1	283.0	289.2	298.4	
6833F537		179.1	188.2	198.5	213.4	227.6	241.3	251.5	268.0	280.7	300.1	309.8	322.1	322.1	
6833F538		185.7	189.9	202.9	223.7	241.2	250.2	259.8	271.2	286.6	308.3	304.9	307.9	312.4	
6833F539		205.3	219.1	236.3	259.9	271.0	278.0	285.3	298.8	305.2	328.3	319.9	328.6	336.1	
6833F540		189.7	195.7	202.2	222.8	235.3	250.3	262.1	277.9	288.7	310.6	302.7	315.7	325.5	
6833F541		191.0	206.5	220.4	241.3	251.6	264.6	273.2	284.0	288.8	308.7	304.0	315.6	316.1	
6833F542		167.0	169.3	181.0	198.0	212.6	224.3	236.7	249.2	258.5	284.8	272.5	284.8	293.0	
6833F543		174.8	189.2	206.8	226.5	237.5	249.6	236.5	272.7	281.8	304.3	289.2	294.3	301.3	
6833F544		178.2	192.3	206.9	224.5	242.8	248.5	278.4	278.4	285.3	308.4	294.8	307.7	317.7	
6833F545		191.1	205.4	220.8	240.3	253.8	262.6	278.2	292.1	296.9	325.6	318.4	329.1	336.4	
6833F546		185.2	199.1	215.4	237.9	250.6	262.0	272.9	293.4	290.4	311.9	298.4	311.1	315.3	
6833F547		182.0	184.4	201.2	209.6	221.3	230.1	243.1	251.8	263.4	286.2	282.1	285.2	291.1	
6833F548		177.4	193.2	212.7	233.2	249.0	257.7	268.5	276.7	284.8	307.6	296.2	306.8	306.9	
6833F549		189.2	199.4	218.4	237.1	252.0	256.3	269.6	280.5	293.4	299.3	303.3	310.7	312.3	
6833F550		194.3	202.4	224.7	236.6	247.9	260.3	263.7	273.5	282.1	281.8	287.8	294.5	298.7	
(n)		50	50	50	50	50	50	49	50	50	50	50	50	50	
Means		182.1	193.8	207.8	226.1	240.0	250.9	260.7	273.7	282.2	296.5	297.1	306.1	312.5	
Sdevs		9.8	11.6	16.2	15.6	15.6	16.4	16.6	15.9	15.7	18.5	16.7	17.0	16.6	
6835G601	3	184.0	190.3	202.4	220.9	233.8	245.2	253.6	265.8	275.9	287.2	292.7	305.7	312.4	
6835G602		178.8	189.9	208.8	230.1	246.5	258.7	269.5	279.5	289.0	292.5	302.4	308.8	317.9	
6835G603		190.9	193.0	201.1	220.7	233.3	247.5	257.3	266.9	275.9	284.0	291.7	299.7	303.5	
6835G604		188.6	195.4	211.4	235.5	244.4	255.9	265.4	276.3	287.6	292.1	296.2	309.0	315.8	
6835G605		172.8	180.7	200.2	217.2	230.3	245.4	253.7	265.3	274.0	282.2	290.8	299.6	304.0	
6835G606		211.4	227.1	250.8	272.5	289.6	305.8	316.7	330.0	340.2	348.5	357.8	367.3	379.6	
6835G607		179.5	185.0	198.0	213.6	218.8	225.2	235.2	238.6	250.6	256.1	259.8	273.8	282.4	
6835G608		200.3	204.9	220.7	236.4	244.0	255.6	267.6	277.5	285.7	288.5	297.7	307.4	315.2	
6835G609		187.4	191.2	208.2	227.7	237.8	255.5	267.4	283.0	288.0	297.6	306.5	315.1	327.8	
6835G610		181.9	192.6	213.5	229.5	247.1	262.1	275.9	273.2	292.2	299.4	306.7	315.0	324.0	
6835G611		176.7	182.3	195.2	216.7	232.8	246.4	260.8	257.7	280.2	286.9	296.2	303.4	313.1	
6835G612		195.4	208.4	224.0	246.6	258.1	274.9	284.9	298.0	308.5	317.5	325.1	338.4	339.0	
6835G613		170.1	174.7	185.8	210.7	221.9	240.5	249.9	264.2	274.0	284.4	294.8	302.5	305.5	
6835G614		195.2	203.4	223.9	240.8	255.0	265.7	272.8	282.1	295.5	305.4	312.3	320.7	327.1	
6835G615		180.2	187.3	196.2	210.3	223.3	235.9	248.0	257.6	273.6	278.0	285.0	293.1	298.1	

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory  
Research Institute

Animal body weights in (g)  
Study number: FY01013M

Printed: 14-Jun-04  
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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic									
Animal	Group	16!	7"	14	21	28	Day	35	42	49	56	63	70	77	84						
		M a l e																			
		A n i m a l s																			
6835G616	3	186.1	197.7	216.9	231.5	237.9	253.8	265.4	274.7	284.3	288.3	295.9	306.5	312.0							
6835G617		179.9	188.6	199.6	210.2	223.5	238.9	249.4	265.2	273.2	280.2	288.7	298.6	301.0							
6835G618		178.0	184.3	196.8	213.1	224.9	233.2	243.1	259.0	272.9	276.3	280.4	286.6	298.2							
6835G619		188.4	194.8	205.8	226.2	238.5	251.9	263.9	275.3	278.3	286.9	295.9	310.0	311.1							
6835G620		188.5	196.2	211.6	226.6	234.5	255.0	263.2	276.9	282.3	290.0	298.7	310.5	317.2							
6835G621		159.9	163.0	179.0	198.7	212.4	228.0	237.5	251.4	261.7	273.6	281.8	290.3	298.8							
6835G622		178.3	182.9	195.1	209.8	223.4	233.1	240.9	253.0	260.7	271.5	277.4	282.9	289.0							
6835G623		194.9	201.7	220.9	236.8	251.7	262.9	272.4	285.0	289.9	298.0	306.2	307.9	318.4							
6835G624		175.6	180.3	192.1	205.7	215.5	225.4	232.1	243.9	249.0	255.1	266.1	270.6	279.2							
6835G625		178.5	186.1	203.2	224.1	238.5	253.4	263.0	273.1	281.9	290.5	294.6	306.6	314.7							
6835G626		176.9	181.9	193.1	206.7	217.0	229.5	239.1	251.4	257.4	265.5	272.1	280.4	287.5							
6835G627		169.2	178.8	190.9	212.0	229.8	242.8	254.7	267.0	277.2	287.1	296.5	305.6	311.7							
6835G628		184.8	195.6	209.7	227.7	243.2	257.3	266.1	276.8	286.5	290.7	301.2	309.7	310.6							
6835G629		195.1	209.1	217.6	236.7	253.4	266.9	275.5	285.0	299.3	303.2	315.7	323.6	324.0							
6835G630		193.3	209.8	228.1	242.8	270.6	264.7	270.5	281.5	290.9	294.0	296.2	305.8	310.6							
6835G631		196.8	218.8	234.9	258.2	257.2	292.5	306.1	317.3	328.9	336.4	342.0	359.6	367.6							
6835G632		205.0	212.7	224.5	238.8	252.7	254.6	265.3	279.6	289.8	298.8	304.8	309.7	319.3							
6835G633		186.0	187.9	195.7	207.3	219.4	230.4	245.3	259.4	275.9	281.3	288.2	297.9	303.8							
6835G634		196.2	209.6	217.6	239.9	252.1	265.8	275.4	285.3	299.6	302.5	311.0	323.9	330.1							
6835G635		182.2	190.6	207.5	221.3	232.5	245.8	256.1	264.7	273.2	277.7	288.9	296.5	303.0							
6835G636		191.2	197.8	224.4	245.6	263.6	276.0	286.3	296.6	312.3	317.8	334.4	344.7	352.4							
6835G637		183.4	193.7	211.9	234.9	244.2	256.9	265.6	275.7	288.1	291.3	307.4	314.1	321.5							
6835G638		174.1	188.3	201.2	218.9	232.1	242.8	260.5	273.0	282.1	285.9	294.1	309.2	318.9							
6835G639		188.0	203.5	222.3	236.9	250.2	265.7	279.0	282.3	291.2	302.9	306.7	320.7	324.4							
6835G640		177.0	185.9	202.2	211.6	222.7	239.9	240.8	249.5	262.7	265.4	275.9	283.5	291.1							
6835G641		184.4	196.3	216.5	231.8	244.5	252.0	260.1	270.4	281.3	289.6	295.4	305.8	309.0							
6835G642		196.0	211.0	226.6	244.9	257.7	274.3	278.7	290.2	303.3	308.9	315.7	324.3	331.3							
6835G643		171.1	183.5	198.6	216.8	226.1	239.8	247.3	256.5	268.4	274.7	281.8	287.2	293.0							
6835G644		197.7	211.6	217.7	238.3	249.8	259.6	264.9	276.6	280.2	290.1	298.5	305.0	309.2							
6835G645		188.7	194.2	201.3	214.2	222.0	242.5	248.3	257.0	267.2	275.9	280.9	294.3	299.1							
6835G646		195.3	208.7	221.1	228.4	247.4	259.6	268.2	281.2	293.5	301.4	310.4	321.1	332.1							
6835G647		169.8	185.8	199.7	215.9	226.3	235.5	254.1	256.5	264.8	275.2	285.7	294.8	299.6							
6835G648		171.5	188.1	202.7	217.6	230.4	237.9	245.5	262.1	278.1	287.9	292.0	296.8	301.8							
6835G649		165.3	174.4	189.2	209.6	217.8	229.5	238.3	250.5	260.9	264.0	272.8	279.2	287.2							
6835G650		166.1	171.7	184.1	197.8	206.6	215.5	221.8	233.1	241.3	250.1	259.6	270.4	271.5							
(n)		50	50	50	50	50	50	50	50	50	50	50	50	50							
Means		184.1	193.4	208.0	225.3	237.7	250.7	260.5	271.0	281.6	288.6	296.6	305.9	312.3							
Sdevs		10.9	12.9	14.3	15.3	16.5	17.4	17.8	17.9	18.3	18.3	18.7	19.6	20.2							
6837H701	4	169.9	185.0	200.8	224.5	238.0	253.1	267.2	279.2	295.3	306.7	319.7	327.7	334.3							

Note: ! = Pretest phase; " = Dosing phase

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Animal body weights in (g)  
Study number: FY01013M

Printed: 14-Jun-04  
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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic									
Animal	Group	16!	7"	14	21	28	D a y			P h a s e			56	63	70	77	84				
							M a l e			A n i m a l s											
6837H702	4	184.9	189.1	205.3	225.7	241.8	254.2	266.3	275.8	290.4	298.6	312.0	315.5	329.4							
6837H703		180.0	191.8	211.5	234.3	249.3	267.2	276.2	287.9	299.7	313.0	323.1	328.0	331.9							
6837H704		134.2	177.8	201.8	215.7	230.0	242.2	255.6	267.9	278.7	287.7	293.6	301.2	307.4							
6837H705		182.1	194.7	210.7	230.9	243.1	259.0	267.4	283.6	292.9	303.6	316.8	320.9	328.8							
6837H706		190.4	195.6	205.9	225.5	239.4	256.0	267.6	277.6	286.6	297.0	308.6	320.5	326.5							
6837H707		183.3	191.1	203.8	219.9	230.9	245.0	253.8	262.9	272.1	282.9	289.4	298.4	301.7							
6837H708		174.9	181.3	197.2	212.5	224.6	235.9	248.0	255.4	269.9	279.6	281.7	289.2	294.0							
6837H709		187.9	203.3	214.8	233.4	248.1	258.5	269.2	280.2	290.3	299.8	309.5	310.8	317.6							
6837H710		180.2	180.2	188.5	208.8	224.6	231.8	250.0	262.6	277.1	280.8	294.8	307.2	311.3							
6837H711		183.2	199.0	219.4	235.6	252.4	278.5	291.9	291.9	300.4	309.5	318.1	328.0	333.3							
6837H712		173.5	182.1	191.3	212.1	222.2	240.7	250.3	262.3	273.7	281.2	288.5	296.2	298.1							
6837H713		194.9	205.0	222.9	243.6	255.6	263.6	275.1	288.4	294.2	299.6	308.9	314.9	314.9							
6837H714		168.8	172.4	185.5	205.7	218.1	229.3	238.2	251.1	262.6	268.1	277.4	287.2	291.1							
6837H715		185.5	199.9	215.0	237.6	248.4	259.2	270.2	280.4	294.1	310.4	317.4	321.6	323.0							
6837H716		174.9	187.6	202.8	216.4	226.9	239.3	246.7	259.1	266.7	274.8	277.6	288.9	292.5							
6837H717		189.8	209.3	224.2	243.2	254.4	266.2	279.7	291.0	298.5	308.7	314.6	321.6	330.9							
6837H718		168.7	166.5	183.5	199.4	211.2	221.2	234.0	246.5	262.2	264.8	272.4	284.0	287.6							
6837H719		167.7	175.0	183.5	203.2	223.3	234.8	242.4	256.9	265.9	270.8	286.1	290.6	302.1							
6837H720		172.7	174.1	183.9	198.2	215.4	222.5	233.5	243.4	249.7	255.7	265.7	261.2	267.3							
6837H721		193.6	200.4	212.4	236.9	249.4	264.2	273.0	282.3	292.7	296.7	305.4	312.7	316.0							
6837H722		173.8	180.8	195.7	211.7	222.1	238.2	247.3	256.1	269.1	276.5	286.8	295.8	303.6							
6837H723		177.4	186.3	200.2	217.7	226.4	242.3	252.6	264.5	275.0	279.8	292.7	302.3	304.0							
6837H724		198.2	212.0	227.1	244.7	253.5	280.4	294.8	310.2	310.2	317.8	326.0	339.0	345.0							
6837H725		178.5	161.4	179.6	204.8	217.8	231.0	242.6	253.6	265.5	274.6	283.3	288.0	294.0							
6837H726		182.0	190.9	201.5	217.3	226.8	239.5	248.7	258.2	266.6	272.8	278.8	288.0	293.0							
6837H727		171.9	178.7	196.3	220.3	231.8	243.8	257.2	270.3	286.9	291.6	300.5	310.6	319.2							
6837H728		166.0	168.6	179.6	202.0	213.5	221.1	238.8	239.8	249.9	259.1	266.3	273.1	279.9							
6837H729		192.9	200.2	214.1	227.1	236.5	246.3	253.5	266.9	278.1	279.9	288.3	293.5	298.2							
6837H730		179.4	190.5	201.0	215.2	224.0	234.0	243.3	260.5	271.2	275.6	284.3	291.8	295.3							
6837H731		186.4	190.3	200.3	213.0	224.9	238.8	249.9	259.5	271.6	275.8	284.1	290.5	298.4							
6837H732		195.7	205.1	217.8	234.7	243.9	257.9	266.8	278.0	293.7	299.7	306.6	316.8	321.5							
6837H733		182.9	187.9	201.3	216.2	228.9	237.7	245.8	259.2	267.9	271.8	279.8	288.2	293.1							
6837H734		176.8	182.6	196.5	210.1	219.3	226.5	234.3	244.6	259.6	261.2	271.8	282.6	287.8							
6837H735		160.2	164.3	175.8	192.0	201.2	210.1	220.9	231.3	245.7	251.6	259.2	270.3	278.8							
6837H736		166.7	106.6	165.5	198.0	224.6	241.7	252.3	262.5	275.7	280.6	294.9	304.3	311.9							
6837H737		182.5	200.5	215.7	236.3	245.2	254.5	263.9	274.1	287.6	289.9	298.4	305.2	312.6							
6837H738		162.0	104.1	161.0	193.5	219.5	234.2	245.7	257.8	268.5	275.3	287.0	293.7	312.9							
6837H739		184.8	189.3	199.5	210.0	213.9	227.9	235.8	243.0	259.8	266.7	279.2	284.0	298.3							
6837H740		180.2	191.0	209.5	229.9	242.3	261.7	270.5	285.5	290.8	296.7	309.9	322.5	332.5							
6837H741		179.7	189.3	198.2	215.3	233.6	242.7	257.0	270.1	274.9	286.4	293.7	302.3	309.9							
6837H742		191.1	199.3	211.3	224.4	235.4	244.6	254.2	260.6	275.5	279.4	287.7	296.4	296.4							

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory  
Research Institute

Animal body weights in (g)  
Study number: FY01013M

Printed: 14-Jun-04  
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Rat/F344/N		Study start date: 23-May-01												
Animal	Group	16!	7"	14	21	28	35	42	49	56	63	70	77	84
		D a y O f P h a s e												
		M a l e					A n i m a l s							
6837H743	4	170.3	172.3	188.2	206.4	219.0	226.4	237.1	251.5	263.8	271.6	278.6	291.5	300.3
6837H744		159.4	183.7	199.4	215.8	226.8	235.4	249.9	257.2	270.8	277.4	287.6	296.0	303.0
6837H745		170.1	183.7	197.8	213.4	224.9	235.9	247.4	258.2	267.3	278.5	284.6	295.7	299.1
6837H746		181.4	196.7	204.7	223.1	235.4	247.3	257.5	268.0	281.0	288.3	298.0	310.4	317.0
6837H747		187.7	193.9	200.9	213.0	221.7	232.4	245.7	255.3	264.5	269.5	283.9	298.1	302.3
6837H748		178.6	183.6	193.9	211.7	219.7	231.1	241.8	245.5	261.4	265.8	273.8	282.8	287.5
6837H749		159.1	164.6	172.3	181.3	193.3	202.6	212.0	221.6	232.7	239.1	248.2	257.4	263.9
6837H750		179.8	190.3	195.7	204.3	214.7	226.7	237.4	243.8	256.8	263.6	273.9	285.3	294.6
	(n)	50	50	50	50	50	50	50	50	50	50	50	50	50
	Means	177.9	184.2	199.5	217.4	229.5	241.7	252.2	263.4	275.0	282.0	291.2	299.6	305.8
	Sdevs	11.6	20.2	14.5	14.3	14.3	15.5	15.8	16.6	16.2	17.3	17.8	17.6	17.8

Note: ! = Pretest phase; " = Dosing phase

Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic												
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427										
		M a l e										A n i m a l s												
6831E401	1	325.0	346.7	358.7	373.8	379.4	395.3	399.1	399.4	407.8	421.1	422.9	426.8	430.1										
6831E402		322.3	339.8	346.8	361.1	366.6	382.2	382.1	382.9	405.4	418.0	427.0	405.6	413.2										
6831E403		300.9	316.7	331.3	347.2	353.7	366.5	367.0	373.0	386.5	390.8	359.4	385.9	377.8										
6831E404		331.2	350.9	361.6	382.6	393.4	408.3	413.4	410.7	429.6	448.7	445.3	454.9	460.2										
6831E405		294.5	315.1	323.6	346.3	353.1	371.6	370.6	375.8	393.0	399.0	404.6	415.1	409.4										
6831E406		285.6	306.1	318.7	332.6	338.8	355.7	359.3	359.6	377.0	383.4	367.3	379.3	389.6										
6831E407		322.1	342.1	352.9	360.1	378.4	390.0	389.0	397.3	420.9	416.1	411.9	420.1	423.0										
6831E408		341.9	344.8	359.5	345.5	352.7																		
6831E409		323.6	340.7	356.1	370.6	376.4	382.9	388.4	401.7	410.1	419.6	419.0	431.6	435.0										
6831E410		346.4	360.3	367.1	380.2	393.1	408.8	410.9	424.6	445.4	449.8	453.7	474.2	470.0										
6831E411		341.8	361.0	374.3	384.1	393.2	401.8	404.2	418.5	418.5	431.0	431.5	446.0	450.7										
6831E412		319.3	333.9	351.9	362.3	375.9	389.0	391.5	397.7	419.1	429.0	424.0	433.2	430.6										
6831E413		300.2	330.9	353.1	367.3	386.2	410.9	399.4	406.4	420.2	429.9	419.7	435.2	428.3										
6831E414		323.1	354.3	369.6	383.1	395.4	410.9	417.7	412.3	431.7	445.2	439.1	448.3	453.3										
6831E415		329.6	339.9	351.1	371.6	379.4	383.2	395.0	401.8	403.6	419.4	417.2	426.0	430.5										
6831E416		328.7	348.7	365.6	371.4	384.2	403.6	399.2	408.1	419.2	432.9	432.2	442.8	448.8										
6831E417		328.4	344.2	357.7	376.5	374.8	388.6	394.0	401.3	414.1	428.8	429.0	442.4	448.0										
6831E418		325.7	343.3	363.2	372.9	388.1	409.1	403.1	406.2	426.4	433.8	429.9	441.1	430.4										
6831E419		372.2	390.6	399.4	416.1	437.6	457.5	431.9	458.3	474.1	454.3	481.7	490.5	482.5										
6831E420		312.6	334.0	351.0	364.1	375.9	392.0	392.5	397.6	403.0	400.5	412.0	413.9	413.9										
6831E421		312.9	349.6	367.4	377.6	393.9	413.5	418.0	427.6	436.3	441.1	444.8	452.6	457.6										
6831E422		302.9	320.0	329.1	337.9	351.6	360.3	369.2	383.0	388.4	397.5	401.0	408.2	405.8										
6831E423		296.6	315.0	335.9	354.5	369.8	383.7	390.6	398.5	400.9	415.4	425.0	428.2	427.6										
6831E424		313.0	337.7	355.0	370.9	382.0	406.0	411.5	418.0	429.1	438.0	441.1	451.2	442.3										
6831E425		332.6	362.4	376.8	394.9	408.8	430.9	434.8	444.1	451.0	462.9	469.0	477.5	472.6										
6831E426		287.0	308.9	324.8	340.6	352.1	368.2	369.5	373.6	389.5	392.5	371.0	396.1	390.4										
6831E427		316.2	338.3	349.8	366.5	378.7	400.5	393.5	404.2	395.0	413.5	410.5	424.0	421.0										
6831E428		302.8	325.8	338.1	361.6	366.0	384.5	390.7	404.4	411.5	423.9	429.1	430.1	428.4										
6831E429		340.3	359.1	377.6	390.3	405.9	427.8	427.2	442.4	452.3	461.3	466.7	475.7	472.7										
6831E430		333.6	362.9	375.4	397.4	412.3	423.2	435.9	444.5	446.8	456.5	472.3	481.6	483.1										
6831E431		352.4	372.3	385.7	394.5	402.7	426.2	407.9	431.6	424.6	439.8	410.8												
6831E432		307.4	331.4	347.9	354.9	373.8	396.1	387.8	401.3	411.2	420.9	431.6	437.6	444.8										
6831E433		312.5	335.2	355.9	372.7	382.8	398.7	401.6	411.2	420.3	429.8	432.9	436.1	429.0										
6831E434		331.2	346.6	363.3	383.0	385.9	403.2	403.4	410.1	417.4	426.4	433.1	435.3	437.8										
6831E435		301.0	327.5	341.6	355.2	363.7	375.0	387.4	380.1	398.8	409.7	411.0	414.6	416.9										
6831E436		302.3	314.9	330.4	340.6	355.7	371.6	375.6	390.1	387.4	403.5	392.8	409.8	408.2										
6831E437		299.5	331.7	336.2	349.8	357.0	374.3	376.8	382.5	389.1	401.0	407.2	421.3	416.2										
6831E438		325.9	346.8	355.5	361.1	379.7	387.7	383.0	394.6	405.7	420.0	374.2	402.8	407.5										
6831E439		295.0	320.6	336.9	353.3	361.8	373.0	384.0	383.8	391.1	404.7													
6831E440		330.6	357.1	373.8	396.4	395.5	415.6	415.9	441.5	442.2	451.9	462.4	461.4	465.5										
6831E441		301.0	328.9	336.1	349.7	354.5	375.5	384.8	391.5	410.9	419.8	423.8	435.8	446.1										

Note: Data for Dosing phase

Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic												
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427										
		D a y										P h a s e												
		M a l e					A n i m a l s																	
6831E442	1	341.6	362.1	374.1	381.9	386.3	410.2	415.0	430.0	437.9	447.9	454.0	466.5	470.9										
6831E443		314.6	334.8	356.1	367.1	369.5	394.9	386.4	382.9	394.5	410.9	422.0	433.1	447.7										
6831E444		306.5	323.7	337.0	347.8	357.9	378.7	373.5	370.4	377.3	397.1	399.4	405.2	412.2										
6831E445		339.4	358.1	364.8	380.7	398.6	404.4	405.2	409.0	416.4	441.6	436.5	443.1	446.1										
6831E446		339.2	363.5	381.6	391.3	399.3	416.4	414.0	426.8	444.3	458.5	452.9	466.9	468.3										
6831E447		317.1	347.2	368.7	386.1	401.5	416.3	425.3	431.6	443.9	458.3	425.2	442.9	459.6										
6831E448		288.4	317.1	336.0	353.3	360.0	370.4	373.8	377.4	386.7	392.9	398.0	408.5	405.5										
6831E449		345.5	367.1	378.9	390.9	411.0	427.7	429.7	444.0	455.7	469.5	473.9	482.7	486.1										
6831E450		302.8	330.9	344.5	363.1	375.8	394.0	384.3	404.5	413.3	421.0	429.1	433.9	442.7										
	(n)	50	50	50	50	50	49	49	49	49	49	48	47	47										
	Means	319.3	340.8	355.0	368.6	379.4	396.3	397.0	405.3	415.8	426.1	424.8	435.7	437.0										
	Sdevs	18.9	18.1	17.9	18.3	19.9	21.0	19.4	22.5	22.5	21.9	27.9	25.8	26.2										
6833F501	2	327.9	347.6	356.5	373.9	383.7	382.8	394.7	390.7	399.9	405.2	406.4	415.6	406.8										
6833F502		311.2	330.5	341.2	356.1	369.2	376.4	380.4	391.4	403.7	421.4	412.3	427.1	421.0										
6833F503		313.1	333.9	339.8	348.6	368.6	376.8	383.1	378.7	396.6	406.7	406.0	420.6	411.3										
6833F504		332.7	350.9	359.6	371.8	393.3	402.7	413.0	413.6	423.5	434.4	439.7	452.2	441.8										
6833F505		337.5	357.4	365.9	374.2	382.9	400.2	405.2	411.3	421.2	432.3	437.1	442.8	431.1										
6833F506		320.8	337.7	354.0	365.9	377.5	392.0	400.9	392.3	404.9	408.3	407.2	418.1	406.3										
6833F507		278.2	305.7	320.4	329.3	344.1	358.8	362.3	370.2	386.1	395.7	402.7	410.6	412.7										
6833F508		324.9	343.3	361.5	373.2	385.1	397.1	402.1	412.6	406.8	423.5	424.5	437.0	429.8										
6833F509		325.1	345.2	361.6	375.4	386.2	397.0	402.5	404.1	416.6	435.0	430.3	443.7	425.7										
6833F510		305.4	323.3	337.8	351.6	365.8	377.8	378.0	378.0	389.9	396.5	413.1	411.9	399.1										
6833F511		338.3	361.7	371.0	383.6	405.8	419.1	424.2	428.0	441.8	463.2	462.2	470.3	466.3										
6833F512		296.3	325.5	355.1	364.1	378.0	395.1	407.4	401.7	413.5	428.7	438.2	434.3	431.5										
6833F513		286.4	312.7	323.6	339.4	342.3	361.7	366.7	357.3	379.6	385.1	383.8	394.2	376.6										
6833F514		302.9	324.1	342.0	345.5	353.8	370.2	380.4	381.0	385.2	389.5	393.2	394.9	398.1										
6833F515		330.9	349.4	370.4	375.0	382.8	402.6	409.5	408.3	421.2	427.3	424.8	432.2	430.1										
6833F516		331.6	350.3	363.3	375.4	384.9	404.3	405.7	420.9	438.8	437.6	438.2	439.8	436.3										
6833F517		324.0	339.4	356.7	378.3	379.6	397.7	403.7	412.4	421.7	430.2	426.3	430.0	433.6										
6833F518		320.8	347.4	360.1	378.5	393.3	407.0	410.0	411.0	417.3	438.1	445.7	459.5	456.4										
6833F519		350.4	370.3	381.6	397.5	410.8	427.0	435.6	434.3	440.2	454.1	461.9	473.4	470.2										
6833F520		334.1	353.3	358.8	372.3	383.0	395.0	405.0	396.2	398.8	413.3	412.5	420.6	417.3										
6833F521		311.3	330.5	338.9	349.5	356.9	373.7	384.8	390.7	396.9	411.4	406.8	408.2	409.5										
6833F522		309.2	334.5	349.9	351.5	368.6	386.7	392.7	407.7	404.5	417.9	424.4	426.6	431.0										
6833F523		309.3	336.0	357.6	367.5	383.9	385.1	400.1	406.9	419.6	427.6	431.7	437.4	447.7										
6833F524		345.7	368.3	379.8	391.2	400.9	412.3	422.3	436.9	446.4	455.9	460.5	456.7	449.2										
6833F525		341.7	363.6	369.2	384.4	399.3	415.4	412.7	427.1	436.7	448.6	443.0	424.8	428.5										
6833F526		317.5	339.3	359.4	364.2	375.8	388.8	399.1	402.2	412.4	421.6	424.0	424.8	407.0										
6833F527		287.9	315.4	335.5	353.0	367.1	379.6	387.2	385.7	388.6	393.1	401.7	390.2	407.0										
6833F528		301.8	320.7	335.5	346.6	359.4	370.8	380.2	389.0	392.6	391.3	393.6	389.7	394.9										

Note: Data for Dosing phase

Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic				
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427		
		M a l e										A n i m a l s				
6833F529	2	322.9	347.2	361.2	368.8	381.2	392.7	402.8	403.5	410.8	418.8	410.4	418.1	430.6		
6833F530		317.5	337.8	352.3	363.6	374.6	388.1	386.5	396.0	401.1	408.9	412.7	421.0	426.1		
6833F531		331.4	354.4	377.8	383.5	392.6	411.9	418.3	428.2	428.2	434.3	424.8	406.7	451.4		
6833F532		303.1	328.7	343.3	354.4	364.1	376.0	380.5	387.0	403.5	414.1	421.7	419.4	426.8		
6833F533		317.7	338.3	352.7	361.2	376.4	391.3	392.0	399.4	400.2	413.4	412.5	406.7	414.6		
6833F534		279.7	306.9	329.7	335.4	348.0	361.6	370.8	390.0	383.6	387.2	397.8	391.0	405.4		
6833F535		331.9	364.8	381.4	387.8	402.6	415.5	416.2	435.9	440.4	454.5	459.3	460.0	472.1		
6833F536		306.5	318.5	329.4	337.5	355.2	363.5	365.0	375.3	381.4	391.7	397.0	395.6	404.2		
6833F537		322.4	344.9	360.7	370.3	381.1	394.9	402.9	405.2	416.1	423.9	428.5	437.2	447.8		
6833F538		319.8	334.0	354.2	355.0	364.4	384.7	385.3	388.9	399.8	415.9	413.8	401.8	410.9		
6833F539		337.5	349.8	369.1	375.8	383.3	400.2	406.2	418.2	425.5	435.8	429.0	435.1	441.2		
6833F540		327.3	350.1	366.1	379.7	388.2	403.3	410.7	420.9	429.3	439.7	440.4	444.6	413.6		
6833F541		318.6	336.4	349.1	355.6	375.7	385.5	382.4	394.3	395.6	403.7	402.6	409.7	411.9		
6833F542		296.8	316.4	332.5	344.3	351.9	363.2	370.3	374.0	383.9	391.2	386.4	396.9	396.1		
6833F543		305.0	322.4	345.6	344.2	351.4	367.3	370.4	370.4	368.4	383.7	386.4	402.7	398.8		
6833F544		317.4	341.4	358.4	358.9	374.3	394.1	393.6	393.5	402.6	415.2	422.8	431.2	425.0		
6833F545		340.4	355.3	371.9	377.1	389.6	403.8	390.4	406.2	414.3	428.4	422.5	432.9	430.0		
6833F546		317.4	345.6	351.4	360.8	375.4	395.2	390.7	400.6	409.4	425.1	422.5	430.3	427.7		
6833F547		317.7	318.0	338.9	346.2	363.2	375.2	380.4	390.3	400.5	411.3	417.5	415.8	413.7		
6833F548		310.4	336.0	342.8	354.0	373.4	390.7	398.8	405.3	410.0	427.7	432.7	438.6	438.0		
6833F549		310.6	335.2	345.0	347.9	364.0	383.8	380.2	397.0	405.8	411.8	409.4	414.9	414.8		
6833F550		298.2	324.4	342.9	352.2	370.3	385.6	389.5	397.3	413.7	424.7	420.6	424.0	422.9		
(n)		50	50	50	50	50	50	50	50	50	50	50	49	49		
Means		316.9	338.5	353.3	363.0	375.5	389.5	394.5	400.2	408.6	419.1	420.5	424.4	424.4		
Sdevs		16.8	15.8	15.0	15.8	16.2	16.5	16.4	17.7	18.1	19.7	19.5	20.9	20.4		
6835G601	3	310.4	337.6	339.6	354.1	357.8	379.2	382.2	374.6	387.4	401.0	401.6	405.5	398.1		
6835G602		314.7	339.2	346.1	365.1	382.8	395.8	402.7	404.8	410.9	420.7	422.9	433.1	419.9		
6835G603		309.2	334.5	344.1	354.7	370.5	388.4	391.1	398.1	405.7	417.9	417.5	430.5	426.0		
6835G604		311.2	339.4	355.7	362.6	389.1	402.7	403.0	396.8	419.5	428.5	435.0	442.4	431.2		
6835G605		303.6	335.9	348.5	361.3	374.8	385.6	382.8	394.9	404.1	413.5	415.1	423.6	416.5		
6835G606		370.9	404.4	421.3	437.4	457.3	473.3	466.3	464.7	486.1	499.2	500.0	502.9	492.9		
6835G607		280.5	311.0	322.6	339.8	356.4	369.5	376.2	375.7	388.7	395.1	399.3	404.5	403.3		
6835G608		318.2	349.2	358.9	367.6	384.4	388.3	397.5	404.3	404.7	411.5	416.7	424.4	417.7		
6835G609		326.1	351.6	372.4	383.9	399.9	412.6	411.1	429.9	444.5	452.8	452.1	457.3	454.2		
6835G610		314.2	351.9	364.8	377.7	385.7	395.0	394.3	400.7	418.8	420.5	417.7	424.8	417.7		
6835G611		303.7	327.8	341.4	353.4	366.6	380.1	382.4	381.8	394.6	410.7	407.1	423.6	381.5		
6835G612		335.7	370.1	385.1	398.4	414.4	432.4	408.6	426.8	441.0	456.9	451.4	461.6	450.0		
6835G613		309.8	335.9	349.3	354.8	376.8	385.3	388.3	396.4	396.4	413.4	410.9	414.9	415.1		
6835G614		318.1	348.3	356.2	370.1	383.7	395.0	394.1	398.1	410.4	422.5	423.7	421.2	420.0		
6835G615		299.3	325.1	345.5	354.8	369.1	388.7	395.8	408.5	410.5	413.1	418.0	425.5	430.1		

Note: Data for Dosing phase

Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic													
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427											
		Day														Phase									
		Male														Animals									
6835G616	3	307.9	336.9	352.1	365.0	379.3	394.0	390.2	400.8	411.5	416.7	416.5	421.6	417.2											
6835G617		299.5	329.3	348.1	363.1	372.9	395.3	395.0	403.0	413.3	426.1	430.9	432.9	431.9											
6835G618		300.0	329.3	351.2	355.0	369.7	383.2	383.6	398.7	401.0	418.9	422.1	424.9	428.7											
6835G619		311.9	337.2	341.9	358.8	369.8	379.6	376.8	386.1	392.3	404.6	401.4	412.7	405.9											
6835G620		318.2	341.8	355.0	364.7	383.8	390.4	392.9	402.8	405.9	414.3	422.2	424.4	422.9											
6835G621		307.2	337.1	334.9	349.7	355.5	367.7	374.1	369.3	379.5	388.7	390.5	391.6	393.9											
6835G622		295.1	315.6	329.8	334.8	343.8	349.2	349.6	358.5	368.5	374.9	377.8	388.5	378.3											
6835G623		318.3	341.9	344.6	355.3	371.1	382.5	384.8	400.8	399.5	416.6	412.1	416.8	414.7											
6835G624		278.9	302.4	315.3	326.4	343.2	353.3	352.4	372.2	366.7	378.9	383.8	390.5	387.5											
6835G625		320.9	342.8	353.5	368.7	375.8	388.3	382.7	391.8	397.6	405.4	412.1	417.3	410.9											
6835G626		296.7	318.8	330.4	347.4	359.4	372.5	363.5	381.9	389.1	390.1	391.5	390.6	393.7											
6835G627		320.7	348.3	364.7	373.7	392.0	404.1	400.0	409.9	415.0	428.0	430.3	428.0	427.8											
6835G628		320.0	339.0	348.0	360.2	381.1	383.2	387.2	385.1	399.2	408.5	416.4	415.1	415.7											
6835G629		319.8	350.6	369.9	385.0	398.4	410.1	415.8	426.1	430.4	444.5	447.2	447.5	444.2											
6835G630		310.0	329.8	338.3	345.4	373.2	373.2	383.8	389.4	389.4	394.0	405.6	409.0	400.1											
6835G631		367.4	392.3	410.4	424.2	444.4	456.9	459.5	462.6	473.3	493.4	490.6	490.7	489.2											
6835G632		318.7	344.5	359.4	371.2	386.0	390.9	397.2	406.5	416.3	434.3	436.9	439.2	434.2											
6835G633		303.9	330.6	350.4	364.0	378.5	393.4	390.9	400.3	406.6	425.4	426.5	419.4	419.2											
6835G634		334.1	349.5	368.8	379.1	394.9	410.4	410.7	416.8	419.3	419.4	429.1	434.6	437.3											
6835G635		305.1	325.2	335.8	349.0	353.7	371.6	368.1	374.3	375.7	387.1	387.5	394.1	384.9											
6835G636		353.9	383.0	397.2	417.7	422.0	442.9	439.6	450.9	458.2	463.4	467.7	459.5	461.1											
6835G637		320.9	342.4	359.7	371.7	388.5	395.0	395.9	403.3	416.2	425.9	423.9	428.4	427.9											
6835G638		311.3	335.0	345.2	358.4	374.0	386.8	381.7	381.0	393.2	406.0	411.2	405.1	402.9											
6835G639		325.4	355.5	365.3	370.4	387.1	396.3	399.1	410.2	417.3	425.3	423.9	424.2	424.2											
6835G640		297.4	313.3	331.0	338.2	356.5	357.1	361.8	377.3	376.6	387.4	387.4	385.9	387.2											
6835G641		311.2	334.8	349.8	366.4	374.2	383.2	381.3	399.1	403.0	385.3	401.4	413.0	411.6											
6835G642		332.5	353.3	365.0	377.2	392.7	398.8	403.4	416.0	424.8	438.3	436.8	438.8	435.5											
6835G643		298.7	323.9	334.3	344.2	353.3	368.7	365.8	374.4	379.7	390.2	388.7	388.1	389.2											
6835G644		314.6	330.7	338.1	346.9	363.3	380.3	384.8	389.0	402.7	426.6	413.9	423.2	419.3											
6835G645		305.5	325.3	336.3	346.4	357.1	363.6	368.8	378.7	379.7	383.0	389.2	388.7	386.5											
6835G646		336.2	363.6	366.9	386.6	404.7	420.6	419.3	427.0	436.3	451.7	460.5	458.5	452.8											
6835G647		306.6	322.1	329.8	347.8	360.5	373.3	373.1	378.2	390.1	406.0	416.1	414.8	418.1											
6835G648		309.7	330.9	344.0	355.2	375.3	384.8	383.3	400.8	411.9	427.4	433.0	437.9	440.7											
6835G649		294.3	315.0	320.0	336.8	353.6	369.5	369.6	380.9	388.0	401.8	403.2	404.3	408.0											
6835G650		277.1	306.4	319.8	335.1	350.7	363.7	366.2	371.1	374.2	384.8	386.8	388.8	402.4											
	(n)	50	50	50	50	50	50	50	50	50	50	50	50	50											
	Means	313.5	338.8	351.1	363.5	377.9	390.2	390.3	398.3	406.5	417.0	419.3	422.9	419.6											
	Sdevs	18.4	19.8	21.1	21.9	23.0	23.9	22.8	22.7	24.6	26.3	25.5	24.9	24.6											
6837H701	4	334.7	361.2	369.2	385.8	398.6	401.4	402.7	399.5	409.1	424.2	411.6	415.7	411.2											

Note: Data for Dosing phase

Lovelace Respiratory  
Research Institute

Animal body weights in (g)  
Study number: FY01013M

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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic												
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427										
		M a l e										A n i m a l s												
6837H702	4	326.1	355.8	365.4	387.3	401.4	410.5	413.6	414.7	425.7	440.0	427.5	437.3	436.5										
6837H703		335.2	363.4	374.7	387.6	404.4	416.3	417.9	423.2	439.8	455.5	434.4	445.5	448.0										
6837H704		320.2	344.2	354.7	372.8	384.9	400.8	404.4	410.3	414.1	430.5	427.3	419.8	421.4										
6837H705		335.2	360.0	369.4	383.8	394.4	419.3	417.0	424.9	437.1	446.2	443.2	447.9	444.2										
6837H706		329.8	355.8	369.0	375.9	393.1	405.6	406.9	408.9	420.6	435.8	424.8	435.2	440.2										
6837H707		303.8	329.6	342.8	357.1	370.0	381.7	389.3	390.9	404.1	407.1	401.4	397.1	408.2										
6837H708		299.6	321.8	339.5	343.4	353.7	343.5	363.7	363.4	367.0	365.9	378.0	378.1	367.7										
6837H709		316.6	339.8	354.9	363.1	373.4	386.6	390.4	388.9	406.0	415.3	417.3	413.9	410.9										
6837H710		314.8	333.4	348.3	369.3	379.1	386.7	392.7	395.9	414.7	421.8	423.4	424.5	421.5										
6837H711		330.9	349.1	363.9	379.8	391.9	409.3	405.9	410.4	426.1	448.5	443.4	439.9	445.6										
6837H712		300.9	325.8	342.4	359.6	383.2	392.4	387.0	392.9	410.0	425.5	418.1	422.4	417.5										
6837H713		322.5	338.7	349.4	364.8	377.6	392.6	390.3	392.9	401.0	412.0	411.2	411.2	402.7										
6837H714		296.2	321.4	339.0	353.9	358.9	379.1	376.1	375.5	384.9	389.4	393.4	390.0	384.2										
6837H715		327.5	355.4	372.8	383.7	390.4	406.4	402.6	407.4	417.5	418.6	426.7	429.5	428.7										
6837H716		298.3	321.3	334.7	352.5	362.9	376.4	382.7	393.8	402.4	413.2	409.9	415.8	417.1										
6837H717		332.8	359.8	376.7	390.9	401.4	411.8	411.0	424.0	431.2	444.3	449.1	446.8	445.1										
6837H718		290.1	305.0	325.6	340.7	350.2	352.9	361.5	371.4	376.0	383.7	377.6	378.2	375.2										
6837H719		300.1	324.1	334.1	352.1	364.3	380.9	380.1	387.9	400.0	414.4	405.1	407.6	405.6										
6837H720		273.2	297.3	306.0	319.7	325.7	340.0	340.1	335.5	342.6	363.1	362.1	364.5	368.9										
6837H721		323.8	342.5	352.0	363.9	366.7	379.1	378.9	390.4	396.9	402.8	402.2	408.7	400.5										
6837H722		305.4	319.7	336.4	352.2	365.8	372.2	375.3	371.1	397.9	403.4	376.8	405.3	393.4										
6837H723		309.4	327.9	338.5	352.1	367.8	375.0	380.3	388.3	396.8	410.2	414.5	418.3	411.1										
6837H724		350.4	364.5	374.2	393.2	405.4	415.0	419.4	425.5	432.5	446.7	446.8	447.4	441.9										
6837H725		297.0	318.8	333.5	341.9	350.2	359.7	362.9	372.8	377.2	390.3	390.9	389.7	392.1										
6837H726		297.9	307.1	319.5	333.8	353.5	357.6	364.7	366.8	376.5	385.3	389.2	395.8	398.6										
6837H727		327.6	353.9	366.6	383.1	387.0	404.3	400.2	404.1	398.7	422.0	414.6	419.6	407.4										
6837H728		283.7	308.3	316.1	336.7	335.2	344.8	349.8	354.5	361.6	378.5	377.6	377.6	375.4										
6837H729		299.3	311.2	329.1	340.1	355.1	361.4	368.5	380.2	378.4	401.9	404.8	413.1	408.9										
6837H730		301.6	324.2	344.8	361.0	382.6	386.5	383.1	387.5	388.9	406.7	412.9	412.2	401.2										
6837H731		306.8	320.4	330.9	345.9	357.5	367.9	376.2	373.7	392.6	393.8	394.5	388.9	381.1										
6837H732		320.8	332.3	340.6	362.6	375.4	395.8	393.9	396.3	403.5	416.8	418.6	421.1	421.0										
6837H733		290.7	306.9	315.5	317.6	327.7	340.6	340.8	350.4	344.6	353.5	351.8	356.1	352.9										
6837H734		289.1	307.8	320.2	339.0	348.4	360.8	363.8	373.5	366.4	388.7	390.1	382.9	385.3										
6837H735		281.0	307.1	333.6	350.1	348.2	362.9	366.6	377.0	374.6	390.2	384.8	391.5	398.3										
6837H736		314.4	338.9	355.0	372.6	379.0	395.6	396.9	397.8	387.1	413.2	413.2	421.3	419.6										
6837H737		316.0	334.9	350.7	362.5	367.6	377.7	379.1	381.4	389.0	400.8	401.7	384.9	397.5										
6837H738		304.3	315.2	327.7	346.4	365.5	377.8	379.9	386.0	390.0	404.9	400.5	410.0	410.1										
6837H739		295.6	315.6	334.7	348.2	355.9	372.7	377.8	389.7	374.8	394.3	394.6	393.2	394.8										
6837H740		333.7	346.9	364.6	377.0	391.6	409.6	406.1	420.5	418.9	441.8	440.8	436.1	440.0										
6837H741		307.7	325.4	335.3	352.3	365.9	373.1	383.6	388.6	388.9	407.3	409.4	409.5	406.5										
6837H742		303.4	318.3	326.7	337.1	350.8	368.5	368.6	375.2	384.3	393.0	399.4	402.2	394.3										

Note: Data for Dosing phase

Rat/F344/N		Study start date: 23-May-01								Inhalation/whole-bdy/Chronic									
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427					
						M a l e				A n i m a l s									
6837H743	4	304.6	331.1	347.7	368.0	372.1	383.5	388.1	394.1	396.5	415.6	418.2	425.2	441.3					
6837H744		306.4	322.6	333.9	344.1	353.8	371.7	371.6	378.4	384.7	394.5	392.4	391.8	386.2					
6837H745		309.4	329.3	346.7	360.2	367.6	381.9	383.4	394.7	400.7	398.0	412.0	380.2	391.1					
6837H746		318.7	339.0	357.5	374.0	380.4	391.7	385.8	398.7	404.8	418.4	422.1	400.5	411.6					
6837H747		308.0	328.4	348.2	365.5	372.2	382.3	379.8	394.5	400.3	409.6	413.7	417.0	411.3					
6837H748		296.0	318.0	337.0	356.4	363.4	382.1	376.2	377.4	388.0	403.8	382.6	407.6	401.6					
6837H749		270.7	288.6	297.4	319.0	333.5	343.3	350.2	359.9	358.2	362.7	362.6	360.8	357.1					
6837H750		297.0	326.3	344.5	358.4	365.8	381.8	381.6	390.9	390.5	404.4	417.3	414.2	422.1					
	(n)	50	50	50	50	50	50	50	50	50	50	50	50	50					
	Means	309.2	329.9	343.8	358.8	369.4	381.4	383.4	389.0	395.5	408.2	406.7	408.1	406.5					
	Sdevs	17.2	18.5	18.5	18.8	19.7	21.1	19.2	19.6	22.1	23.2	22.2	22.8	23.0					

Note: Data for Dosing phase

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Animal body weights in (g)  
Study number: FY01013M

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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic		
Animal	Group	455	487	515	539	Day	567	595	Phase	623	651	679	707	
		Male										Female		
		Animals										Animals		
6831E401	1	424.7	432.4	425.1	416.8	409.3	406.8	402.6		391.2				
6831E402		419.5	423.8	428.2	410.9	375.9								
6831E403		389.2	390.4	388.5	376.9	375.5	354.7							
6831E404		461.9	471.1	474.2	459.6	470.8	472.2	484.9						
6831E405		413.9	419.8	421.4	410.6	408.7	402.3	403.5		375.8				
6831E406		394.6	398.2	407.2	400.5	403.5	395.1	404.9		398.3	386.5	334.3		
6831E407		416.8	419.4	427.6	413.9	417.6	417.4	414.8		413.7	412.2	409.4		
6831E409		439.0	449.3	456.7	435.6	439.1	404.7	337.4						
6831E410		477.1	475.3	477.2	449.3	455.0	454.1	445.9						
6831E411		447.0	453.6	457.3	459.6	450.0	443.9	435.7						
6831E412		439.7	440.1	434.4	450.7									
6831E413		431.1	431.6	430.6	417.9	416.8	406.1	397.5		396.2	392.0	377.4		
6831E414		454.4	445.2	454.7	437.2	424.6	413.7							
6831E415		432.5	437.9	440.1	425.0	422.0	413.1	417.0		409.9	403.0	403.5		
6831E416		454.6	459.2	430.1	433.8	436.5	425.5	419.8		408.1				
6831E417		461.4	471.6	469.8	471.0	466.1	463.2	473.8		476.0	460.3	447.8		
6831E418		434.0	439.6	436.3	428.6	434.8	429.0	426.6		424.8	420.8	403.0		
6831E419		463.9	484.1	479.4	463.4	459.2	455.3	460.4		438.6	415.8			
6831E420		416.8	415.2	409.4	392.1	396.0	394.1	381.4		382.9	373.2			
6831E421		463.9	466.4	466.4	452.6	439.5								
6831E422		408.9	412.8	415.0	408.4	406.2	410.9	402.9		401.3	391.9	392.1		
6831E423		433.9	445.3	449.6	435.3	432.0	396.7							
6831E424		445.5	439.3	442.7	403.1	425.8	419.7	378.1						
6831E425		490.4	499.6	493.0	481.0	468.8	457.8	448.0						
6831E426		405.3	410.3	415.5	406.0	396.6	400.5	394.7			382.7	304.6		
6831E427		427.4	426.3	412.4	432.3	426.9	405.8	387.2		367.1	351.7	341.2		
6831E428		433.2	430.3	430.4	409.7	405.1	404.7	366.1						
6831E429		481.6	481.5	481.0	466.2	468.2	465.0	462.1		424.3				
6831E430		493.2	491.6	482.1	477.0	469.7	455.7	459.1		324.4				
6831E432		444.8	454.2	444.2	436.0	438.5	444.2	411.5		377.2				
6831E433		438.2	436.7	444.2	424.7	422.0	405.3	384.8		347.6				
6831E434		439.8	438.5	444.0	432.6	430.3	421.1	413.9		322.3				
6831E435		421.3	426.0	426.3	413.2	407.9	411.3	406.8		398.3				
6831E436		417.4	420.4	426.7	417.5	414.5	409.3	405.6		400.5				
6831E437		424.3	438.7	429.7	425.2	425.2	429.3	417.9		417.2				
6831E438		424.8	421.8	414.6	405.2	406.0	405.2	393.1		377.2				
6831E440		482.3	483.1	485.6	469.2	471.8	455.9	444.8		438.2				
6831E441		461.2	458.2	455.5	442.8	448.7	446.5	375.4						
6831E442		482.3	479.9	472.5	463.5	465.1	464.1	457.3		442.8	434.4	416.5		
6831E443		422.6	459.2	454.1	442.6	436.5	440.1	433.3		428.6	415.0	406.9		
6831E444		422.5	428.2	425.2	416.2	408.6	412.1	409.0		367.9				

Note: Data for Dosing phase

Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic		
Animal	Group	455	487	515	539	Day	567	595	Ph	ase	623	651	679	707
A n i m a l s														
6831E445	1	443.3	446.7	443.0	431.7	M a l e	435.4	424.6	A s	372.5	431.8	416.5	394.5	
6831E446		472.4	472.4	466.6	453.0		445.9	445.1		442.0				
6831E447		464.3	468.6	463.1	450.4		455.5	449.0		429.2				
6831E448		413.1	410.3	413.5	411.9		404.8	407.2		402.4	404.6	397.1	399.0	
6831E449		489.7	498.3	484.5	472.5		474.4	466.1		460.5	449.4	433.6	428.9	
6831E450		442.9	450.0	448.7	443.7		449.2							
	(n)	47	47	47	47		46	43		40	31	21	18	
	Means	441.8	445.8	444.2	433.6		431.3	425.7		416.6	401.6	402.7	391.8	
	Sdevs	26.1	26.6	25.0	24.6		25.9	26.1		32.5	34.7	27.6	35.7	
2														
6833F501		420.1	418.8	422.5	415.5		405.2	392.8		398.7	396.6	389.3	384.7	
6833F502		434.4	436.1	429.5	421.2		426.1	415.0		411.4	394.3	392.4	387.4	
6833F503		418.8	422.2	429.9	421.5		410.9	409.1		399.5	408.4	345.8		
6833F504		444.2	444.8	445.3	435.7		430.2	421.6		417.4	412.2	415.6	397.6	
6833F505		436.1	447.7	449.5	438.8		440.5	424.9		419.6				
6833F506		404.2	413.6	412.6	404.7		403.0	399.3		386.2				
6833F507		415.3	431.1	439.8	436.2		432.6	417.5		418.4	401.3	392.0	380.4	
6833F508		435.8	427.8	435.8	430.3		429.2	414.2		407.2	398.6			
6833F509		434.0	432.7	442.4	405.3		453.0							
6833F510		409.7	412.3	415.7	403.8		394.3	389.9		383.3	433.4	431.2	416.4	
6833F511		469.1	467.6	473.6	456.1		453.0	443.6		441.5				
6833F512		430.1												
6833F513		388.7	382.6	388.6	380.6		379.6	378.3		369.4	353.9	354.8	342.3	
6833F514		392.3	399.4	404.5	395.8		390.0							
6833F515		423.0	430.3	435.9	396.2									
6833F516		435.9	445.9	447.3	436.3		421.2	417.0		412.3	405.9	395.6	388.5	
6833F517		438.1	445.1	443.1	433.2		431.9	424.6		408.3				
6833F518		467.6	473.2	469.9	457.6		456.3	435.4		434.1	447.3	439.0	427.4	
6833F519		472.4	480.9	482.2	476.6		467.6	465.3		452.9	389.6	384.3	372.9	
6833F520		418.2	422.4	422.6	414.7		405.7	401.7		398.6	381.0	365.8	355.0	
6833F521		410.9	417.7	419.4	414.2		402.5	390.2		389.7	415.7	393.0		
6833F522		434.8	441.0	442.5	439.2		426.3	413.3		414.9	422.6	425.3	417.7	
6833F523		445.4	455.9	447.8	440.3		432.3	429.8		424.0	431.4	435.4	412.8	
6833F525		449.2	459.1	453.1	451.2		444.2	433.3		430.6	390.0	381.1	380.5	
6833F526		431.4	437.7	434.7	418.4		416.3	410.5		397.5				
6833F527		395.5	396.6	388.8	380.2		360.6							
6833F528		381.2												
6833F529		429.0												
6833F530		428.3	431.8	428.8	426.6		422.7	426.3		425.9	423.5	413.8	329.1	
6833F531		453.4	459.2	458.7	449.6		435.0	434.3		429.4	419.7	413.1		
6833F532		353.4												

Note: Data for Dosing phase

Rat/F344/N		Study start date: 23-May-01				Inhalation/whole-bdy/Chronic							
Animal	Group	455	487	515	539	Day	567	595	Phase	623	651	679	707
A n i m a l s													
M a l e													
6833F533	2	411.9	411.6	406.9	402.5	403.7	395.3	377.3					
6833F534		404.0	414.1	415.5	408.4	401.1	395.3	377.3			439.2	436.8	430.1
6833F535		469.0	476.6	473.4	459.7	449.8	445.8	447.0			390.3	393.0	367.9
6833F536		408.0	413.1	409.4	405.2	399.0	398.3	395.4					
6833F537		456.0	452.7	455.6	441.6	441.4	431.3	399.8					
6833F538		416.7	421.7	416.0	402.6	395.8	393.9	396.8			386.0	391.4	
6833F539		448.7	448.2	441.6	428.6	429.1	430.2	418.1			372.0		
6833F541		412.3	414.7	407.4	396.9	391.7	386.9	382.6			370.7		
6833F542		405.0	410.0	405.8	392.1	392.7	391.9	391.0			387.3	384.4	378.3
6833F543		401.8	408.7	407.4	399.2	393.8	395.0	401.5			325.8		
6833F544		423.7	428.0	426.9	419.3	413.2	411.9	410.1			402.2		
6833F545		424.2	426.8	423.9	374.1								
6833F546		430.3	435.6	428.4	416.8	418.2	414.4	417.0			415.6	412.8	351.1
6833F547		420.1	419.5	419.4	414.3	405.3	398.9	396.3			391.7	388.6	374.2
6833F548		441.3	440.8	435.1	430.2	434.4	426.7	431.3			436.4	457.3	
6833F549		409.6	418.6	410.3	406.0	406.5	397.5	385.5					
6833F550		413.2	423.9	407.7	405.1	402.8	395.1	397.7			389.4	391.6	382.9
	(n)	48	44	44	44	42	38	38			30	25	20
	Means	424.9	431.8	430.8	420.1	417.8	413.2	408.4			401.1	400.9	383.9
	Sdevs	23.8	21.6	22.1	22.9	23.0	19.4	19.7			26.2	26.9	27.6
A n i m a l s													
M a l e													
6835G601	3	400.2	401.1	405.6	397.3	399.6	399.0	400.3			392.7	391.5	383.0
6835G602		420.2	411.1	420.0	409.3	415.4	403.2	405.6			405.3	403.8	389.7
6835G603		431.7	435.4	436.6	422.1	417.6	407.4	391.5			393.0	376.9	371.7
6835G604		429.5	433.0	439.6	430.8	428.1	423.7	421.5			349.6		
6835G605		418.3	423.8	420.5	406.7	401.9	400.9	393.5			388.7	380.5	372.0
6835G606		498.4	489.2	487.4	475.6	456.6	400.9	393.5					
6835G607		407.0	408.0	412.8	401.8	393.7	385.4	379.1			377.4	374.4	374.7
6835G608		419.4	421.5	418.1	410.5	394.0	403.5	404.9			402.6	403.5	
6835G609		457.3	431.8	435.1	424.1	421.4	419.5	420.4			417.3	408.9	400.8
6835G610		415.8	419.7	417.6	408.2	398.4	384.4	384.5			376.4	375.7	374.0
6835G612		459.8	459.2	461.8	437.6	438.1	424.1	374.0					
6835G613		409.5	417.5	410.2	407.4	402.3	398.0	395.0			390.9	382.7	378.4
6835G614		422.0	424.0	421.1	434.7	409.9	404.9	402.2			396.9	389.2	389.4
6835G615		432.3	430.7	422.4	415.3	407.9	407.2	397.4			392.4	387.8	382.8
6835G616		419.5	423.3	416.1	410.7	413.8	406.4	397.5			391.4	375.5	
6835G617		433.5	443.8	441.1	432.0	413.0	416.8	409.5			402.3	400.1	392.4
6835G618		436.2	429.0	420.2	415.1	413.9	414.1	342.8					
6835G619		415.9	419.6	423.7	409.9	409.3	409.1	382.7					
6835G620		423.3	422.6	391.6	410.7	413.7	406.5	334.3					
6835G621		394.3	386.4	411.1	379.4	380.4	372.2	366.2			371.8	362.5	354.9

Note: Data for Dosing phase

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Animal body weights in (g)  
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Rat/F344/N		Study start date: 23-May-01					Inhalation/whole-bdy/Chronic							
Animal	Group	455	487	515	539	Day	567	595	Phase	623	651	679	707	
		M a l e A n i m a l s												
6835G622	3	385.7	386.7	400.0	388.3	382.6	381.0	374.7	377.5	372.5	372.5	372.5	372.5	
6835G623		420.3	424.5	411.1	397.0	393.6	392.1	386.0	380.3	380.3	380.3	380.3	380.3	
6835G624		394.1	399.7	400.0	413.9	409.9	412.7	405.2	405.3	405.3	405.3	405.3	405.3	
6835G625		415.0	418.3	411.9	391.4	389.7	380.8	378.0	374.0	374.0	374.0	374.0	374.0	
6835G626		398.6	396.8	398.2	418.7	418.8	417.7	409.7	405.3	405.3	405.3	405.3	405.3	
6835G627		432.5	430.4	429.6	413.0	406.0	406.0	405.5	401.9	401.9	401.9	401.9	401.9	
6835G628		415.6	423.7	421.1	435.8	439.3	430.9	419.7	322.4	322.4	322.4	322.4	322.4	
6835G629		449.3	451.8	448.3	402.6	398.5	395.1	389.3	384.5	384.5	384.5	384.5	384.5	
6835G630		502.4	412.3	412.3	485.8	475.7	480.6	468.4	448.1	448.1	448.1	448.1	448.1	
6835G631		407.6	499.0	503.5	441.0	431.8	425.1	403.9	393.3	393.3	393.3	393.3	393.3	
6835G632		444.3	453.8	450.0	419.1	414.5	410.5	409.0	410.4	410.4	410.4	410.4	410.4	
6835G633		421.5	423.9	422.3	427.1	423.0	410.3	420.1	413.6	413.6	413.6	413.6	413.6	
6835G634		439.4	443.3	439.8	427.1	423.0	410.3	420.1	413.6	413.6	413.6	413.6	413.6	
6835G635		392.7	395.1	390.2	386.4	382.0	350.0	308.4	394.5	394.5	394.5	394.5	394.5	
6835G636		463.1	464.6	456.9	452.6	430.2	392.7	386.9	402.8	402.8	402.8	402.8	402.8	
6835G637		429.6	432.2	428.9	421.2	417.8	398.1	386.9	399.1	399.1	399.1	399.1	399.1	
6835G638		408.5	418.5	415.4	403.2	402.1	403.5	396.5	376.3	376.3	376.3	376.3	376.3	
6835G639		428.1	438.8	431.9	420.7	416.9	410.4	404.2	399.1	399.1	399.1	399.1	399.1	
6835G640		428.1	438.8	431.9	420.7	416.9	410.4	404.2	399.1	399.1	399.1	399.1	399.1	
6835G641		386.4	385.1	382.8	380.6	349.8	398.4	377.2	369.5	369.5	369.5	369.5	369.5	
6835G642	416.7	412.2	409.8	391.4	396.3	398.4	377.2	376.3	376.3	376.3	376.3	376.3		
6835G643	389.5	397.9	395.8	413.6	410.7	408.0	387.5	358.7	358.7	358.7	358.7	358.7		
6835G644	428.0	422.5	378.6	387.1	389.6	399.1	387.5	365.8	365.8	365.8	365.8	365.8		
6835G645	390.9	381.0	384.2	375.4	380.2	384.3	378.6	419.6	419.6	419.6	419.6	419.6		
6835G646	455.1	444.6	457.8	434.7	435.2	429.8	423.8	412.6	412.6	412.6	412.6	412.6		
6835G647	430.0	439.9	442.1	421.2	422.3	425.2	418.1	418.0	418.0	418.0	418.0	418.0		
6835G648	446.5	449.2	449.3	435.1	431.9	425.2	418.1	412.2	412.2	412.2	412.2	412.2		
6835G649	414.1	415.5	413.7	399.3	399.1	394.4	384.3	376.6	376.6	376.6	376.6	376.6		
6835G650	409.9	415.1	419.7	410.5	401.2	395.3	344.7	34	34	34	34	34		
(n)		49	49	47	47	45	43	28	28	28	28	28		
Means		424.4	425.2	423.4	415.0	410.2	392.9	390.5	389.0	389.0	389.0	389.0		
Sdevs		25.0	24.0	24.8	22.3	21.2	19.7	22.8	15.4	15.4	15.4	15.4		
6837H701	4	418.7	419.8	424.0	403.2	402.4	376.5	381.6	369.2	369.2	369.2	369.2	369.2	
6837H702		436.6	433.8	425.9	407.7	404.5	392.3	399.3	397.7	397.7	397.7	397.7	397.7	
6837H703		444.6	459.8	460.8	446.8	447.9	425.8	406.1	435.9	435.9	435.9	435.9	435.9	
6837H704		426.1	428.0	426.1	413.9	411.9	389.9	385.4	393.1	393.1	393.1	393.1	393.1	
6837H705		445.7	454.6	450.1	436.4	429.8	419.2	426.8	419.4	419.4	419.4	419.4	419.4	
6837H706		435.5	442.5	439.9	422.7	418.7	401.6	408.6	392.1	392.1	392.1	392.1	392.1	
6837H707		410.3	409.5	414.5	392.4	381.8	375.9	386.4	339.3	339.3	339.3	339.3	339.3	

Note: Data for Dosing phase

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Research Institute

Animal body weights in (g)  
Study number: FY01013M

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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic		
Animal	Group	455	487	515	539	Day	567	595	Phase	623	651	679	707	
		Male										Female		
6837H708	4	378.3	374.4	385.3	371.4	366.8	357.6	360.6	360.6	360.0	353.0	353.6		
6837H709		421.2	416.4	410.4	396.6	391.9	374.8	362.3	362.3	356.9				
6837H710		416.9	423.8	418.2	393.5	383.5	348.2	344.3	344.3	336.4	309.7			
6837H711		443.7	458.9	462.3	442.8	445.5	427.3	426.9	426.9	418.7	378.9			
6837H712		418.6	421.3	422.5	407.6	402.5	368.9							
6837H713		408.8	412.8	415.7	376.2	401.7	381.0	372.3	372.3	362.9	336.1	305.4		
6837H714		388.3	388.9	390.7	376.5	370.3	361.1	362.7	362.7	357.3	346.9	339.1		
6837H715		437.3	437.8	436.0	430.4	428.1	419.7	371.9	371.9					
6837H716		419.5												
6837H717		449.9	445.6	437.8	429.3	419.6	427.2	419.1	419.1	416.9	410.9	404.0		
6837H718		379.4	381.5	377.7	366.5	363.7	360.9	357.5	357.5	351.3	355.2	349.4		
6837H719		407.1	409.0	376.9										
6837H720		372.1	374.0	370.0	349.5	361.8	358.2	335.0	335.0					
6837H721		402.8	403.9	406.1	389.4	385.8	383.6	381.2	381.2	378.0	370.1			
6837H722		404.3	398.5	404.1	386.5	386.9	371.2	378.6	378.6	377.8	370.5	353.4		
6837H723		416.1	422.3	416.7	409.5	364.0								
6837H724		446.8	445.3	443.7	433.1	425.0	424.9	420.4	420.4	408.1	397.6	377.0		
6837H725		395.5	403.8	402.8	396.0	393.6	392.0	393.7	393.7	389.3	371.9	355.2		
6837H726		403.6	402.6	402.7	387.6	385.7	385.9	384.7	384.7	392.6	384.7	375.9		
6837H727		405.6	402.4	397.4	392.5	381.8	375.0	370.5	370.5	346.6				
6837H728		376.9	378.8	372.2	366.9	358.2	361.1	353.7	353.7	339.0	335.5	333.7		
6837H729		411.2	414.3	409.4	403.2	391.3	397.6	393.9	393.9	380.4	366.1	366.3		
6837H730		380.5	387.8	386.4	375.1	365.9	369.3	367.8	367.8	389.7	380.6			
6837H731		432.4	420.6	419.3	401.8	389.7								
6837H732		361.6	361.9	364.5	360.2	347.3	289.6							
6837H733		390.2	388.8	382.3	376.2	372.0	373.9	364.1	364.1	365.9	344.8			
6837H734		403.8	409.9	406.5	398.3	387.3	394.4	383.9	383.9	390.4	380.6	369.9		
6837H735		419.3	421.8	419.1	409.6	397.6	406.8	392.6	392.6	394.3	387.3	385.5		
6837H736		404.0	415.9	409.6	392.0	371.7	372.9	347.6	347.6	319.8				
6837H737		407.7	417.6	408.1	398.2	392.5	396.5	395.1	395.1	387.1	381.7	384.0		
6837H738		398.6	403.1	403.4	398.4	383.1	392.8	389.0	389.0	384.0	382.2			
6837H739		438.9	440.9	439.4	430.7	419.2	418.7	381.9	381.9	384.0				
6837H740		414.1	408.9	409.0	394.8	391.6	387.3	388.0	388.0	384.7	373.8	355.3		
6837H741		374.7	390.6	390.3	392.7	321.3	301.3							
6837H742		412.0	414.0	410.7	393.1	385.1	393.8	394.7	394.7	393.4	382.7	356.2		
6837H743		342.1												
6837H744		369.0	399.2	400.2	386.9	397.6	375.0	376.8	376.8	367.4				
6837H745		416.1	418.7	421.5	407.0	397.4	395.6	371.9	371.9	377.2	370.6	363.1		
6837H746		412.1	408.8	408.7	388.4	383.6	381.8	369.0	369.0					
6837H747		406.9	408.6	392.2	379.7	369.8								
6837H748														

Note: Data for Dosing phase

Lovelace Respiratory  
Research Institute

Animal body weights in (g)  
Study number: FY01013M

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Rat/F344/N		Study start date: 23-May-01									
		D a y		O f		P h a s e		I n h a l a t i o n / w h o l e - b o d y / C h r o n i c			
Animal Group		455	487	515	539	567	595	623	651	679	707
6837H749	4	354.4	358.0	354.6	342.4	342.0	336.6	340.0	338.2	342.9	320.0
6837H750		417.1	433.0	430.4	418.2	409.4	410.0	406.4	399.9	383.0	
	(n)	50	48	48	47	47	44	41	37	30	22
	Means	407.8	412.3	409.7	397.3	389.7	383.0	381.6	376.0	369.8	362.6
	Sdevs	24.9	23.6	23.9	23.1	25.5	29.3	22.6	29.1	23.2	24.7

Note: Data for Dosing phase

I-2 Males

Summary Statistics - Body Weight Data

LoveLace Respiratory Research Institute  
 Mean Animal Body Weights in (g)  
 Study number: FY01013M  
 Rat/F344/N  
 Study start date: 23-May-01  
 Inhalation/whole-body/Chronic  
 Printed: 10-Jul-06  
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Group(s)	Day of Phase															
	16 <sup>1</sup>	7 <sup>1</sup>	14	21	28	35	42	49	56	63	70	77	84	16 <sup>1</sup>	7 <sup>1</sup>	14
1	(N)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Means	184.4	188.2	207.5	226.5	239.7	251.2	259.1	272.7	283.1	290.5	297.6	309.1	314.7	309.1	314.7
	Sdevs	7.8	11.5	12.9	14.3	16.1	17.3	18.2	17.8	17.5	18.3	18.4	19.0	18.8	19.0	18.8
2	(N)	50	50	50	50	50	49	50	50	50	50	50	50	50	50	50
	Means	182.1	193.8%	207.8	226.1	240.0	250.9	260.7	273.7	282.2	296.5	297.1	306.1	312.5	306.1	312.5
	Sdevs	9.8	11.6	16.2	15.6	16.4	16.6	15.9	15.7	18.5	16.7	17.0	17.0	16.6	17.0	16.6
3	(N)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Means	184.1	193.4%	208.0	225.3	237.7	250.7	260.5	271.0	281.6	288.6	296.6	305.9	312.3	305.9	312.3
	Sdevs	10.9	12.9	14.3	15.3	16.5	17.4	17.8	17.9	18.3	18.3	18.7	19.6	20.2	19.6	20.2
4	(N)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Means	177.9\$	184.2	199.5*	217.4+	229.5+	241.7*	252.2	263.4*	275.0*	282.0	291.2	299.6*	305.8*	299.6*	305.8*
	Sdevs	11.6	20.2	14.5	14.3	14.3	15.5	15.8	16.6	16.2	17.3	17.8	17.6	17.8	17.6	17.8

Note: 1 = Pretest phase; " = Dosing phase  
 \*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

LoveLace Respiratory Research Institute  
 Mean Animal Body Weights in (g)  
 Study number: FY01013M  
 Rat/F344/N  
 Study start date: 23-May-01  
 Inhalation/whole-body/Chronic  
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Group(s)	Day of Phase												
	91	119	147	175	203	231	259	287	315	343	371	399	427
1	(N)	50	50	50	50	50	49	49	49	49	48	47	47
	Means	319.3	340.8	355.0	368.6	379.4	396.3	397.0	405.3	415.8	426.1	424.8	435.7
	Sdevs	18.9	18.1	17.9	18.3	19.9	21.0	19.4	22.5	22.5	21.9	27.9	25.8
2	(N)	50	50	50	50	50	50	50	50	50	50	49	49
	Means	316.9	338.5	353.3	363.0	375.5	389.5	394.5	400.2	408.6	419.1	420.5	424.4*
	Sdevs	16.8	15.8	15.0	15.8	16.2	16.5	16.4	17.7	18.1	19.7	19.5	20.4
3	(N)	50	50	50	50	50	50	50	50	50	50	50	50
	Means	313.5	338.8	351.1	363.5	377.9	390.2	390.3	398.3	406.5	417.0	419.3	422.9*
	Sdevs	18.4	19.8	21.1	21.9	23.0	23.9	22.8	22.7	24.6	26.3	25.5	24.6
4	(N)	50	50	50	50	50	50	50	50	50	50	50	50
	Means	309.2*	329.9+	343.8+	358.8*	369.4*	381.4+	383.4+	389.0+	395.5+	408.2+	406.7+	408.1+
	Sdevs	17.2	18.5	18.5	18.8	19.7	21.1	19.2	19.6	22.1	23.2	22.2	22.8

Note: Data for Dosing phase  
 \*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

LoveLace Respiratory Research Institute  
 Mean Animal Body Weights in (g)  
 Study number: FY01013M  
 Rat/F344/N  
 Study start date: 23-May-01  
 Inhalation/whole-body/Chronic

Printed: 10-Jul-06  
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Group(s)	Phase											
	455	487	515	539	567	595	623	651	679	707		
1	(N)	47	47	47	46	43	40	31	21	18		
	Means	441.8	445.8	444.2	433.6	431.3	425.7	416.6	401.6	402.7	391.8	
	Sdevs	26.1	26.6	25.0	24.6	25.9	26.1	32.5	34.7	27.6	35.7	
2	(N)	48	44	44	44	42	38	30	25	20		
	Means	424.9+	431.8*	430.8*	420.1*	417.8*	413.2%	408.4	401.1	400.9	383.9	
	Sdevs	23.8	21.6	22.1	22.9	23.0	19.4	26.2	26.9	27.6		
3	(N)	49	49	49	47	47	45	34	28	22		
	Means	424.4+	425.2+	423.4+	415.0+	410.2+	405.4\$	392.9\$	390.5	389.0	381.7	
	Sdevs	25.0	24.0	24.8	22.3	21.2	19.7	27.0	22.8	15.4	12.6	
4	(N)	50	48	48	47	47	44	37	30	22		
	Means	407.8+	412.3+	409.7+	397.3+	389.7+	383.0\$	381.6\$	376.0+	369.8\$	362.6\$	
	Sdevs	24.9	23.6	23.9	23.1	25.5	29.3	22.6	29.1	23.2	24.7	

Note: Data for Dosing phase  
 \*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

I-3 Females

Individual Animal Body Weight Data

Lovelace Respiratory  
Research Institute

Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N Study start date: 30-May-01 Inhalation/whole-bdy/Chronic

Animal	Group	16!	7"	14	21	28	35	42	49	56	63	70	77	84	
		F e m a l e A n i m a l s													
6832E451	1	122.4	129.0	142.9	152.9	159.5	166.5	166.5	172.1	172.6	177.4	178.5	181.2	186.2	
6832E452		121.3	130.7	142.9	146.8	151.3	153.9	156.2	163.1	163.2	164.6	171.4	172.1	175.7	
6832E453		130.3	139.4	152.9	154.6	159.8	165.1	166.2	171.4	170.1	174.6	177.9	180.3	184.0	
6832E454		122.0	130.9	136.2	139.7	139.8	146.5	149.4	155.4	155.5	158.8	167.5	166.4	168.3	
6832E455		128.1	140.7	146.2	153.8	165.0	164.9	172.0	175.0	181.9	180.1	185.9	188.3	190.4	
6832E456		126.8	140.7	148.7	153.1	158.0	162.5	164.5	166.2	170.5	174.5	179.7	184.6	183.8	
6832E457		122.9	136.1	146.6	149.6	142.9	152.4	160.2	164.1	170.0	170.1	176.1	178.7	179.4	
6832E458		125.2	135.9	144.7	151.3	155.7	161.3	165.1	167.0	167.2	173.3	176.7	180.3	194.6	
6832E459		131.2	137.2	148.7	151.9	158.3	165.7	166.8	169.4	170.7	177.0	182.5	186.1	193.6	
6832E460		134.7	142.8	154.5	160.2	167.6	169.3	171.9	180.4	185.0	187.3	192.2	191.7	193.5	
6832E461		126.1	134.4	146.7	150.5	159.4	167.3	168.5	174.7	176.9	176.8	188.9	190.5	195.6	
6832E462		131.4	143.5	154.5	162.7	168.8	170.4	176.4	182.8	183.0	186.7	190.6	191.4	194.2	
6832E463		135.5	140.6	151.3	157.1	162.7	166.8	172.8	177.7	182.6	182.9	188.6	191.4	193.2	
6832E464		118.0	128.0	134.7	139.6	140.9	147.4	149.0	154.2	157.2	159.9	161.5	163.8	167.2	
6832E465		123.1	131.2	143.5	153.0	161.9	166.1	169.8	172.6	175.0	177.3	177.4	181.8	183.7	
6832E466		122.6	134.8	144.2	153.5	158.6	169.9	168.2	171.8	176.3	181.0	184.1	184.2	185.3	
6832E467		136.0	147.7	152.5	159.4	164.6	167.2	173.6	177.3	178.5	184.3	188.1	192.8	195.2	
6832E468		122.4	135.1	148.1	156.1	162.6	169.1	170.3	175.5	178.7	182.5	185.7	189.8	193.8	
6832E469		120.5	132.9	140.9	150.8	155.7	160.4	162.8	171.4	176.2	177.5	183.4	185.6	190.0	
6832E470		128.2	138.5	146.5	156.7	161.2	170.1	168.3	176.0	178.0	180.1	185.0	187.1	189.9	
6832E471		126.5	131.3	141.4	146.3	152.9	158.2	162.4	167.5	167.6	173.4	175.8	177.0	183.9	
6832E472		117.5	125.2	133.1	139.5	142.5	150.8	150.4	155.1	157.5	161.2	164.5	164.9	165.8	
6832E473		120.8	132.8	143.8	148.1	154.2	158.4	164.1	166.7	169.8	176.6	177.3	181.0	180.4	
6832E474		122.8	131.5	141.4	146.1	151.2	154.2	161.5	161.6	161.0	167.6	167.9	172.3	170.5	
6832E475		121.5	131.4	140.3	136.6	135.4	152.1	159.9	157.6	164.4	162.9	176.4	180.1	175.4	
6832E476		125.7	137.2	149.1	147.2	149.6	160.2	171.3	171.1	172.8	166.2	193.9	190.2	184.3	
6832E477		126.3	133.5	146.6	154.1	160.2	163.7	167.9	174.2	175.0	179.1	184.5	188.4	188.7	
6832E478		128.6	138.0	150.7	160.1	165.2	169.7	173.7	178.1	178.7	183.3	191.2	189.8	192.8	
6832E479		127.9	140.8	154.3	164.6	172.1	178.2	179.3	184.1	185.4	190.1	194.8	198.0	199.2	
6832E480		116.3	119.8	128.0	133.6	135.9	140.8	144.7	147.6	150.9	156.3	163.4	164.2	162.9	
6832E481		132.2	136.9	145.7	156.9	159.3	164.5	165.8	171.7	174.6	177.2	183.1	192.6	188.3	
6832E482		129.9	140.0	152.0	159.8	164.1	170.0	172.0	178.0	181.9	192.0	194.3	199.5	200.0	
6832E483		121.2	127.8	134.6	143.6	146.9	152.1	157.0	160.2	160.8	166.4	174.7	176.4	178.4	
6832E484		134.0	148.6	162.1	162.2	173.0	174.5	174.4	179.3	182.4	186.7	192.6	194.9	197.4	
6832E485		133.9	144.5	158.3	168.9	172.2	172.9	172.6	176.0	176.1	179.4	188.6	187.0	190.0	
6832E486		122.9	132.1	143.0	147.5	155.8	160.4	166.8	170.9	173.9	176.9	182.1	186.3	183.7	
6832E487		120.1	131.5	141.2	146.5	150.7	156.7	160.5	166.3	168.5	170.7	183.7	181.0	180.9	
6832E488		125.6	137.6	148.0	157.6	157.5	160.4	165.7	171.7	174.5	177.6	183.0	184.1	184.5	
6832E489		121.9	134.2	145.9	154.4	155.8	158.1	163.4	167.4	170.3	172.7	174.7	175.6	175.2	
6832E490		120.1	133.1	141.7	155.1	154.4	157.5	159.2	166.1	167.2	163.1	171.4	172.2	173.0	
6832E491		119.0	133.0	142.9	156.5	160.8	164.0	168.9	176.3	176.7	183.2	189.3	188.9	192.6	

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory Research Institute

Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic				
Animal	Group	16!	7"	14	21	28	Day	35	42	49	56	63	70	77	84	
		F e m a l e														
		A n i m a l s														
6832E492	1	121.1	129.9	133.9	144.7	139.7	146.3	153.4	156.1	156.7	164.2	167.4	170.9	170.9	169.6	
6832E493		130.2	139.1	152.0	164.5	165.5	170.3	174.2	178.9	178.7	187.8	188.4	187.6	187.6	190.0	
6832E494		127.9	134.6	149.8	159.4	162.8	162.9	167.7	173.7	174.7	177.2	183.6	187.2	187.2	187.4	
6832E495		123.4	139.0	148.5	165.6	166.7	174.1	179.5	185.9	187.5	195.2	198.4	203.8	203.8	200.5	
6832E496		123.9	132.8	139.8	150.7	152.6	158.1	160.2	163.4	165.0	174.2	180.5	181.6	181.6	182.0	
6832E497		127.8	134.1	145.4	155.9	154.9	158.7	161.5	169.6	172.0	178.2	183.9	187.9	187.9	186.9	
6832E498		131.0	143.4	153.3	161.2	156.9	164.0	163.4	175.0	173.8	179.0	188.0	186.1	186.1	181.7	
6832E499		112.9	124.2	130.8	143.2	140.0	142.2	145.4	152.2	154.8	162.2	166.6	167.4	167.4	169.3	
6832E500		129.1	142.5	154.7	168.5	168.4	173.3	178.1	184.4	188.7	194.0	196.4	200.1	200.1	199.7	
	(n)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
	Means	125.4	135.4	145.6	153.0	156.6	161.3	165.3	170.1	172.1	176.1	181.6	183.7	183.7	185.1	
	Sdevs	5.3	5.9	7.1	8.1	9.6	9.9	8.3	8.8	8.9	9.3	9.2	9.5	9.5	9.8	
6834F551	2	124.5	139.1	149.3	167.8	166.7	171.2	176.1	179.6	182.7	189.7	191.2	195.6	195.6	193.3	
6834F552		121.0	134.0	144.8	153.8	157.9	160.0	165.0	170.1	175.3	179.9	183.9	185.8	185.8	186.0	
6834F553		127.5	140.3	150.1	163.3	162.9	165.4	172.6	177.4	181.8	169.9	189.8	190.7	190.7	191.8	
6834F554		126.7	131.8	143.0	146.5	149.1	152.0	157.5	163.4	165.8	170.1	172.6	174.8	174.8	176.6	
6834F555		128.4	139.5	145.5	155.8	162.0	161.4	169.9	174.8	179.8	182.1	184.6	187.6	187.6	189.0	
6834F556		122.4	130.9	139.3	142.2	152.4	156.7	159.4	166.1	168.6	175.6	177.8	182.5	182.5	186.1	
6834F557		116.1	126.7	144.2	150.3	156.6	159.7	163.2	172.6	173.8	179.6	179.5	182.0	182.0	185.9	
6834F558		122.6	132.9	139.0	142.9	145.9	150.1	154.3	163.1	163.4	168.7	168.6	173.4	173.4	173.4	
6834F559		122.1	130.7	138.5	147.1	148.4	152.0	157.2	162.8	164.6	171.3	173.6	174.8	174.8	175.4	
6834F560		124.3	138.4	147.1	162.7	161.1	165.0	168.1	173.6	178.1	180.7	186.6	186.6	186.6	186.9	
6834F561		121.1	131.5	142.9	149.4	155.4	156.9	161.2	168.7	170.1	177.1	180.0	181.2	181.2	184.0	
6834F562		127.5	134.6	142.0	149.4	155.8	156.9	159.4	165.3	167.6	173.1	176.4	178.0	183.3	183.3	
6834F563		123.4	135.0	143.1	149.8	146.7	159.2	165.3	169.0	176.4	185.7	184.2	187.1	187.1	189.9	
6834F564		118.0	128.7	136.3	144.7	146.4	153.7	155.6	161.8	163.4	167.9	171.3	171.5	171.5	174.8	
6834F565		124.2	138.7	143.8	155.2	159.1	164.9	168.9	178.6	177.2	183.0	186.6	189.5	189.5	203.4	
6834F566		120.3	134.5	141.8	150.2	154.9	158.2	166.4	173.8	178.8	184.4	186.5	190.0	190.0	193.9	
6834F567		126.5	138.0	147.3	160.7	165.7	165.8	172.8	177.8	178.1	185.3	185.3	189.4	189.4	193.8	
6834F568		120.2	126.9	137.0	146.6	150.1	151.4	156.5	166.3	170.6	171.8	180.7	178.2	178.2	177.8	
6834F569		129.8	143.3	157.4	170.9	173.3	175.8	183.0	187.6	191.7	190.6	192.9	191.5	191.5	192.2	
6834F570		118.0	131.0	143.9	151.4	155.6	161.8	166.0	170.8	173.4	180.7	180.3	183.0	183.0	182.7	
6834F571		119.5	128.9	137.9	144.6	145.2	152.9	159.1	162.2	165.0	168.3	173.8	173.4	173.4	175.7	
6834F572		119.2	130.9	142.2	151.9	156.3	161.3	166.7	174.3	177.4	187.7	187.4	187.1	187.1	192.8	
6834F573		123.2	132.7	140.9	151.0	152.4	158.8	163.3	164.6	166.0	169.5	168.0	174.8	174.8	175.3	
6834F574		127.0	135.2	139.5	145.3	151.2	153.6	158.8	162.9	163.7	171.7	170.3	175.2	175.2	175.5	
6834F575		126.7	140.2	150.3	157.8	164.6	173.5	179.4	179.4	186.7	186.7	191.3	195.5	195.5	193.0	
6834F576		123.5	132.8	140.6	147.1	147.2	153.5	156.4	161.2	165.7	171.7	174.1	175.9	175.9	175.6	
6834F577		118.7	134.4	149.5	161.6	169.3	170.6	176.0	178.7	183.0	186.5	190.7	195.8	195.8	191.9	
6834F578		121.4	130.4	139.1	148.1	149.9	157.9	160.8	166.7	171.6	168.6	172.6	175.2	175.2	171.1	

Note: ! = Pretest phase; " = Dosing phase

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Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic				
Animal	Group	16!	7"	14	21	28	Day	35	42	49	56	63	70	77	84	
		F e m a l e														
		A n i m a l s														
6834F579	2	125.8	135.5	145.9	155.7	159.3	164.2	166.0	173.5	175.9	182.3	186.5	190.2	190.2	190.2	
6834F580		119.7	132.2	144.5	154.2	158.8	164.7	173.8	177.4	180.3	188.9	190.5	196.6	196.6	195.7	
6834F581		121.4	135.2	145.0	155.4	163.9	172.1	173.9	173.9	175.7	183.9	190.5	187.8	187.8	192.6	
6834F582		124.5	136.0	140.4	148.0	154.0	157.0	163.0	164.6	163.7	172.2	171.3	174.1	177.7	177.7	
6834F583		115.0	128.0	146.4	153.0	156.9	161.2	165.6	168.4	172.6	176.2	179.5	184.0	184.0	182.3	
6834F584		128.9	136.0	147.4	152.3	157.7	164.2	164.7	164.2	164.7	171.3	172.7	174.3	174.3	176.8	
6834F585		120.0	131.9	141.9	148.5	150.0	154.7	161.0	166.9	171.2	174.9	180.7	182.1	184.0	184.0	
6834F586		122.0	136.9	145.8	152.0	160.9	158.7	162.4	171.2	174.1	179.1	178.2	178.2	183.7	183.7	
6834F587		126.1	140.3	148.8	155.4	168.8	166.8	169.1	174.8	178.1	184.9	184.3	184.1	186.6	186.6	
6834F588		126.1	137.7	146.4	150.8	162.7	159.8	164.8	171.9	175.9	184.9	184.6	188.7	188.7	199.4	
6834F589		131.9	145.2	156.9	159.8	147.8	171.6	172.9	179.3	184.1	189.4	193.7	195.2	195.2	199.4	
6834F590		126.8	138.5	143.9	154.8	154.7	161.3	167.6	172.7	176.5	183.7	193.8	186.7	186.7	188.8	
6834F591		121.0	136.2	144.8	155.3	138.7	154.8	160.3	163.8	173.6	175.9	176.7	183.6	183.6	183.6	
6834F592		123.1	141.9	146.5	150.5	170.2	159.2	161.6	163.0	165.6	171.6	173.0	176.9	176.9	179.2	
6834F593		124.8	141.9	146.5	150.6	149.4	157.8	159.4	171.2	173.2	174.2	179.6	179.1	184.1	184.1	
6834F594		128.8	141.5	151.1	161.2	148.7	173.1	173.8	175.4	180.2	186.1	186.5	190.6	190.6	190.3	
6834F595		129.1	141.1	148.5	157.0	153.6	162.4	165.8	170.6	174.6	177.9	179.6	180.9	180.9	178.7	
6834F596		127.5	138.0	149.3	157.6	155.3	165.6	169.4	175.8	175.5	180.0	179.6	182.3	182.3	182.9	
6834F597		116.3	129.6	141.7	151.1	145.7	154.4	161.6	165.7	171.3	177.8	177.1	183.9	183.9	181.5	
6834F598		121.5	128.6	138.0	142.7	160.6	150.5	154.2	159.8	162.9	168.4	172.4	172.5	172.5	169.6	
6834F599		127.1	137.6	149.8	157.5	148.8	166.1	171.5	178.4	179.9	186.2	187.8	187.3	187.3	189.3	
6834F600		130.0	142.4	155.2	162.6	172.1	175.7	177.1	186.2	186.1	194.1	192.8	197.4	197.4	198.5	
(n)		50	50	50	50	50	50	50	50	50	50	50	50	50	50	
Means		123.6	135.2	144.8	153.1	155.8	160.8	165.3	170.8	173.8	178.9	181.3	183.7	183.7	185.2	
Sdevs		4.0	4.6	4.9	6.6	7.9	6.7	6.7	6.7	6.9	7.2	7.3	7.3	7.3	8.0	
6836G651	3	128.2	141.0	150.2	155.0	162.0	167.7	171.4	172.8	177.6	183.1	186.4	183.4	183.4	186.7	
6836G652		126.3	137.1	147.7	152.8	156.7	160.2	165.4	170.5	175.9	181.8	186.5	185.7	185.7	189.6	
6836G653		113.9	126.3	131.8	138.4	142.9	147.6	155.4	158.5	164.2	169.3	172.1	171.6	171.6	170.6	
6836G654		116.2	123.6	131.5	138.9	142.9	148.3	154.2	160.1	169.0	176.3	176.8	177.5	177.5	182.9	
6836G655		133.2	137.6	144.5	149.7	156.3	161.7	165.2	173.1	175.4	177.2	181.8	188.6	188.6	190.5	
6836G656		130.1	137.7	150.7	154.5	156.0	159.1	165.7	169.5	174.1	176.9	181.7	183.3	183.3	186.0	
6836G657		127.5	138.6	146.0	149.4	158.6	158.3	164.3	168.2	168.1	178.7	178.9	179.6	181.8	181.8	
6836G658		117.8	129.1	140.8	147.7	152.7	156.7	162.3	163.2	170.4	174.1	176.4	177.3	177.3	189.2	
6836G659		124.9	139.2	147.5	158.1	158.1	161.9	170.6	171.9	175.9	184.0	183.5	187.2	187.2	189.2	
6836G660		121.7	130.3	141.1	146.5	152.9	154.3	157.0	165.0	165.8	171.9	171.8	177.6	177.6	177.8	
6836G661		126.8	134.6	140.5	145.0	147.4	151.8	156.0	159.6	161.3	166.8	168.8	174.2	174.2	176.0	
6836G662		127.0	133.8	137.2	143.2	148.5	149.7	157.0	160.9	161.9	166.6	166.3	169.3	169.3	169.0	
6836G663		126.3	142.5	148.5	154.9	158.6	160.7	165.8	169.2	172.4	176.4	178.0	182.3	182.3	186.7	
6836G664		128.4	144.8	148.3	150.6	156.5	157.6	158.8	161.4	164.3	170.2	176.8	176.1	176.1	176.1	
6836G665		115.9	120.8	125.3	132.2	134.6	135.3	140.1	144.5	145.4	153.8	153.5	154.4	154.4	153.5	

Note: ! = Pretest phase; " = Dosing phase

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Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic							
Animal	Group	16!	7"	14	21	28	Day			Phase			56	63	70	77	84		
							28	35	42	49	56	63	70	77	84				
							F e m a l e										A n i m a l s		
6836G666	3	117.2	122.7	131.5	141.8	150.7	150.8	153.0	155.0	158.0	164.2	164.2	166.4	168.1	169.2				
6836G667		116.2	124.2	130.6	138.9	140.2	142.9	144.9	153.5	156.4	163.1	163.1	165.8	164.5	165.3				
6836G668		109.4	120.2	122.8	127.9	131.5	134.1	139.6	145.0	149.2	154.7	154.7	156.0	159.3	158.8				
6836G669		123.6	130.1	138.6	143.3	149.1	150.2	160.2	158.3	163.7	167.5	167.5	171.3	171.8	174.7				
6836G670		129.4	136.9	144.5	150.1	155.3	160.2	163.4	168.4	172.1	178.0	178.0	179.4	178.2	179.9				
6836G671		113.5	127.8	132.9	134.6	143.0	145.6	150.7	155.2	154.3	159.6	159.6	162.3	166.1	166.8				
6836G672		121.2	134.0	138.3	139.8	149.2	154.0	159.2	166.6	166.9	178.3	178.3	176.3	177.1	184.9				
6836G673		117.8	124.5	130.1	136.1	140.7	139.6	144.7	148.2	151.8	157.4	157.4	157.8	160.0	164.7				
6836G674		129.8	144.0	155.8	161.8	166.4	169.5	175.5	179.5	182.6	189.1	189.1	187.4	188.6	190.2				
6836G675		119.3	132.4	139.6	143.2	147.9	150.1	156.4	159.1	165.2	166.9	166.9	172.1	171.4	172.5				
6836G676		120.1	136.8	145.4	152.8	155.1	160.6	166.3	168.4	175.4	177.7	177.7	184.4	185.5	187.0				
6836G677		123.8	136.7	142.4	148.6	161.3	161.6	170.5	169.6	174.1	183.3	183.3	186.3	187.4	189.0				
6836G678		120.3	131.8	142.4	148.6	154.8	159.7	166.8	166.7	169.7	173.2	173.2	177.2	176.9	178.8				
6836G679		126.2	136.7	145.9	158.9	164.6	164.7	171.4	171.4	171.3	179.1	179.1	178.4	179.4	181.1				
6836G680		130.1	140.5	149.0	157.7	164.9	166.9	172.6	179.6	184.5	190.3	190.3	188.3	191.1	193.2				
6836G681		131.2	144.2	155.3	159.2	164.6	169.1	176.3	177.9	182.5	188.1	188.1	194.2	195.5	198.0				
6836G682		116.7	131.0	136.9	141.7	144.0	147.1	151.7	155.0	158.6	162.1	162.1	169.5	168.1	169.2				
6836G683		126.2	140.5	146.7	146.1	156.6	162.5	165.2	166.7	173.9	180.4	180.4	178.8	179.5	179.1				
6836G684		117.4	130.9	141.6	150.0	154.8	162.5	164.0	169.1	173.8	179.5	179.5	181.1	179.7	182.6				
6836G685		121.5	131.6	139.1	144.7	150.3	153.4	155.4	161.5	162.8	165.4	165.4	169.7	171.1	175.7				
6836G686		124.7	137.9	148.2	153.2	161.5	166.7	172.5	179.6	181.6	184.8	184.8	186.4	189.7	192.0				
6836G687		129.1	142.9	152.7	164.3	168.2	170.4	177.2	183.6	184.9	187.0	187.0	189.7	190.0	192.5				
6836G688		127.4	140.5	149.7	154.5	162.6	167.3	171.9	178.5	181.5	186.0	186.0	189.2	190.8	195.5				
6836G689		115.7	125.2	136.2	140.7	148.0	151.4	154.0	159.4	159.1	167.5	167.5	169.3	170.9	171.3				
6836G690		124.6	135.8	147.8	153.8	157.6	159.9	164.4	166.0	169.5	173.9	173.9	176.8	178.8	179.3				
6836G691		121.1	135.3	144.5	149.1	155.6	161.2	163.7	169.8	177.8	182.8	182.8	181.9	184.2	188.7				
6836G692		108.5	122.1	132.9	135.4	139.4	141.3	144.8	151.1	154.4	159.2	159.2	160.9	162.4	167.1				
6836G693		138.9	151.3	161.3	169.0	170.6	174.6	178.8	181.5	184.6	187.8	187.8	192.1	193.1	193.2				
6836G694		117.3	131.9	139.0	147.8	148.0	158.0	160.8	167.7	170.2	169.9	169.9	172.9	173.2	171.3				
6836G695		124.9	135.8	144.5	149.6	153.2	156.4	158.3	162.6	166.5	172.2	172.2	172.8	172.6	174.0				
6836G696		122.3	136.7	146.3	152.2	155.5	162.5	166.2	168.4	172.6	175.3	175.3	177.1	175.1	183.8				
6836G697		122.1	133.7	138.6	142.2	145.5	151.7	154.3	159.6	163.2	164.6	164.6	167.6	171.1	171.1				
6836G698		132.8	139.9	145.7	154.5	160.1	165.8	173.1	173.6	181.7	189.2	189.2	188.1	190.3	192.3				
6836G699		126.7	134.1	141.7	145.2	148.2	150.9	158.7	141.5	166.5	178.7	178.7	181.3	184.6	185.1				
6836G700		109.3	114.3	121.5	126.3	129.8	132.1	135.5	138.2	140.3	144.8	144.8	148.2	147.0	149.5				
(n)		50	50	50	50	50	50	50	50	50	50	50	50	50	50				
Means		122.8	133.8	141.9	147.5	152.7	156.1	160.9	164.5	168.5	173.7	173.7	175.9	177.2	179.5				
Sdevs		6.6	7.4	8.4	8.9	9.2	9.7	10.1	10.5	10.4	10.5	10.5	10.3	10.4	11.0				
6838H751	4	125.4	129.4	139.4	140.5	144.2	148.1	151.1	157.4	161.7	162.9	162.9	165.8	166.3	170.8				

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory  
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Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic			
Animal	Group	16!	7"	14	21	28	Day	35	42	49	56	63	70	77	84
		F e m a l e													
		A n i m a l s													
6838H752	4	127.6	135.0	139.7	149.2	156.8	161.0	165.8	171.1	176.2	178.4	181.0	182.7	181.8	
6838H753		124.0	129.6	142.7	142.3	149.3	151.2	152.2	157.7	160.8	165.6	167.5	170.4	170.7	
6838H754		124.7	133.7	138.2	147.1	154.7	157.2	158.7	163.2	165.8	170.0	171.1	174.4	176.3	
6838H755		116.4	119.0	126.1	130.3	132.3	136.5	138.5	140.2	141.3	147.5	151.4	152.2	155.6	
6838H756		123.3	129.7	133.8	137.0	140.1	147.7	149.0	153.7	157.1	161.4	164.7	164.0	165.3	
6838H757		120.6	130.2	139.4	145.7	152.0	154.6	156.0	161.1	162.4	168.0	170.2	171.1	173.0	
6838H758		131.0	139.4	149.4	159.3	167.0	168.6	172.4	177.8	180.4	185.2	184.5	181.9	187.4	
6838H759		120.1	126.1	130.9	136.0	145.2	148.7	149.9	154.9	158.2	164.1	165.3	164.1	168.2	
6838H760		117.1	128.2	135.4	141.3	147.2	152.3	154.1	157.8	158.4	163.3	169.3	168.3	174.5	
6838H761		121.8	128.0	134.7	142.1	147.4	153.3	147.8	160.0	160.8	166.8	170.1	170.8	173.2	
6838H762		117.2	124.7	131.1	135.7	142.4	143.2	148.3	149.9	150.0	151.1	157.1	157.7	162.4	
6838H763		119.5	129.4	136.1	141.6	145.1	154.9	160.3	161.7	165.2	170.4	172.6	178.2	177.8	
6838H764		119.9	136.5	137.4	141.0	148.0	151.8	153.1	159.7	164.1	167.3	168.7	172.1	173.3	
6838H765		127.9	136.4	145.3	153.5	161.5	164.2	171.9	176.4	177.1	184.7	182.3	186.4	193.4	
6838H766		123.4	129.5	134.9	140.4	143.7	145.1	146.8	150.7	156.3	160.0	158.9	161.6	166.7	
6838H767		122.9	131.8	134.9	143.3	147.2	149.0	149.4	155.6	158.2	164.0	164.3	164.6	168.9	
6838H768		122.8	130.0	137.0	142.9	147.2	149.1	149.4	155.6	158.2	164.0	164.3	164.6	168.9	
6838H769		114.7	121.8	126.0	131.9	140.1	143.4	145.8	150.6	154.7	160.6	161.0	164.9	165.7	
6838H770		130.4	137.2	142.6	148.7	154.0	153.9	160.8	163.4	168.6	174.1	175.6	178.0	181.8	
6838H771		110.5	118.6	123.7	128.6	138.0	140.9	144.0	151.6	153.0	158.1	159.1	162.3	165.7	
6838H772		118.0	129.2	136.3	142.3	149.9	154.2	155.8	163.2	165.6	173.7	173.0	175.7	182.7	
6838H773		122.1	131.5	135.1	141.2	148.7	150.6	151.7	157.9	160.8	167.5	168.3	169.6	171.1	
6838H774		112.1	118.9	120.7	130.5	136.0	137.1	141.8	147.8	152.4	161.8	161.3	161.2	165.2	
6838H775		115.0	125.5	130.6	138.1	146.9	146.8	150.3	153.7	155.6	162.5	163.1	166.4	165.7	
6838H776		120.4	128.2	124.3	139.3	145.2	146.7	150.2	157.6	159.5	163.6	165.1	168.8	168.7	
6838H777		112.2	117.2	124.0	129.5	139.2	144.1	143.3	150.0	153.7	158.7	158.9	159.8	160.4	
6838H778		127.2	134.3	141.1	142.0	145.8	148.7	148.2	157.0	156.9	159.8	164.2	165.7	165.5	
6838H779		129.4	132.5	135.5	145.5	152.1	157.5	158.0	160.1	165.5	168.6	176.2	172.0	176.0	
6838H780		125.1	137.0	143.4	146.0	154.0	152.5	155.7	161.1	164.3	170.7	172.8	174.4	175.9	
6838H781		125.3	131.9	140.4	142.8	151.2	154.6	159.3	164.1	169.8	173.6	179.2	178.9	176.7	
6838H782		119.6	128.7	134.3	140.2	144.6	149.8	151.3	159.3	161.9	169.4	172.1	170.7	180.5	
6838H783		125.5	135.3	138.6	150.3	155.4	158.4	161.5	167.1	169.8	176.9	179.3	178.4	179.9	
6838H784		120.1	132.6	137.7	140.6	145.8	148.6	149.6	157.1	160.7	167.8	170.3	171.4	172.4	
6838H785		128.8	134.5	142.9	149.1	154.3	158.6	164.6	169.1	175.4	180.4	182.7	184.6	185.4	
6838H786		120.4	130.6	139.5	145.5	149.8	153.3	160.4	162.6	166.1	172.5	175.2	177.3	173.8	
6838H787		128.0	138.2	141.0	151.2	154.1	159.2	162.9	165.3	170.6	177.9	181.2	182.6	180.9	
6838H788		114.3	122.8	127.6	135.3	139.8	142.9	148.2	152.6	155.7	161.9	161.9	162.4	164.5	
6838H789		124.3	134.2	142.7	149.9	158.2	159.5	164.9	170.7	175.7	181.4	187.4	188.1	183.6	
6838H790		120.6	127.5	134.5	142.7	151.4	156.5	160.8	164.1	164.1	169.6	170.4	175.3	171.2	
6838H791		118.8	127.1	132.7	141.3	149.2	150.6	153.9	157.6	163.5	167.7	167.0	171.7	177.0	
6838H792		124.2	136.8	142.1	147.8	152.1	153.0	157.7	160.9	162.2	170.5	168.7	170.4	170.5	

Note: ! = Pretest phase; " = Dosing phase

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Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic			
Animal	Group	16!	7"	14	21	28	35	42	49	56	63	70	77	84	
		D a y O f P h a s e													
		F e m a l e										A n i m a l s			
6838H793	4	125.4	131.2	138.4	142.9	148.5	151.6	153.8	161.2	164.8	172.5	170.8	169.4	173.5	
6838H794		122.8	133.3	138.9	142.3	150.6	154.0	153.9	160.3	160.3	165.2	167.2	167.0	167.4	
6838H795		119.6	129.7	137.8	141.2	151.1	151.9	159.6	164.0	166.3	175.0	175.6	173.9	176.8	
6838H796		121.0	128.8	136.1	140.2	147.3	150.6	156.9	158.7	163.7	171.8	172.0	172.7	172.5	
6838H797		120.1	127.5	136.1	142.3	152.4	152.2	152.4	157.6	161.8	170.6	171.2	167.5	176.0	
6838H798		125.6	133.5	141.1	150.8	155.8	156.4	157.0	161.4	162.8	162.8	167.3	167.2	164.5	
6838H799		116.2	125.2	129.1	131.8	136.6	139.2	142.5	148.7	153.1	159.5	161.9	163.5	165.9	
6838H800		126.9	138.2	146.7	155.9	167.9	168.2	169.0	176.8	176.2	179.1	181.0	182.5	181.4	
	(n)	50	50	50	50	50	50	50	50	50	50	50	50	50	
	Means	121.8	130.1	136.2	142.3	148.7	151.7	154.5	159.5	162.6	168.1	169.8	170.9	172.9	
	Sdevs	4.9	5.4	6.3	6.7	7.2	6.9	7.5	7.4	7.6	7.8	7.8	7.8	7.5	

Note: ! = Pretest phase; " = Dosing phase

Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic														
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427												
		F e m a l e															A n i m a l s									
6832E451	1	189.5	195.5	200.9	210.0	211.9	215.4	219.2	222.1	228.3	236.0	250.8	249.8	263.2												
6832E452		176.6	186.5	188.4	200.9	196.3	204.5	205.3	209.3	210.0	214.8	219.8	220.9	225.5												
6832E453		181.9	190.5	194.6	204.7	207.6	209.6	209.6	214.4	213.5	226.7	233.7	231.1	232.9												
6832E454		172.4	182.6	191.5	203.5	200.5	206.1	204.9	217.9	219.7	228.1	232.9	240.5	249.5												
6832E455		193.0	195.7	204.2	216.8	209.8	218.0	218.9	224.3	229.3	234.8	236.3	239.7	254.3												
6832E456		183.5	190.8	192.1	201.6	207.5	211.5	215.3	224.2	231.2	234.4	241.5	249.3	251.6												
6832E457		179.9	187.8	189.7	198.1	201.6	202.0	202.4	208.5	212.0	213.3	217.1	223.1	230.8												
6832E458		183.0	193.5	194.8	200.1	203.3	207.8	206.4	213.2	213.5	210.6	213.9	225.9	227.0												
6832E459		193.6	202.3	212.5	220.4	221.1	221.4	223.3	226.7	227.6	235.0	239.0	246.3	240.9												
6832E460		194.5	200.1	204.1	215.3	213.6	220.5	223.2	226.8	227.5	233.2	227.9	234.0	234.1												
6832E461		198.8	203.6	206.4	216.5	211.7	222.6	221.5	226.1	226.6	235.2	241.2	241.1	251.6												
6832E462		196.6	208.3	214.0	222.4	221.5	228.2	230.5	235.4	238.6	245.8	251.4	265.2	265.9												
6832E463		199.9	210.1	207.9	217.4	220.9	226.7	234.8	229.2	233.0	232.5	239.0	242.2	247.1												
6832E464		166.6	176.6	182.5	190.5	196.5	194.8	194.5	204.3	205.6	209.0	216.1	220.0	229.0												
6832E465		182.8	192.7	194.9	197.2	205.1	201.0	202.3	209.3	208.9	213.9	214.7	215.7	215.5												
6832E466		187.0	201.0	200.5	206.8	209.9	212.6	201.8	212.1	217.7	222.4	229.1	232.2	239.5												
6832E467		196.0	206.9	212.3	215.8	219.9	219.3	223.5	232.3	232.8	240.3	251.9	261.3	276.9												
6832E468		192.0	198.1	203.2	210.6	216.6	214.7	218.8	228.6	228.6	234.5	236.2	232.0	238.7												
6832E469		187.1	194.4	202.8	210.4	207.3	210.1	209.5	214.5	213.9	221.1	226.1	223.3	223.8												
6832E470		191.7	204.3	209.3	214.6	220.9	221.8	217.5	231.4	240.0	240.1	249.1	255.4	272.9												
6832E471		183.5	198.1	198.0	207.9	209.8	212.0	211.7	213.8	215.1	220.3	225.2	229.4	235.2												
6832E472		162.3	173.3	173.7	179.4	182.0	181.6	185.0	181.9	186.6	187.0	176.9	182.0	179.3												
6832E473		182.2	194.4	199.2	210.1	211.3	214.4	220.2	223.6	231.4	228.3	240.4	241.9	252.1												
6832E474		172.5	180.6	177.1	183.8	190.5	193.1	198.0	210.7	204.5	208.2	221.1	220.1	231.8												
6832E475		175.0	191.8	193.0	199.0	201.6	205.6	208.9	213.5	214.3	213.7	218.2	223.9	228.0												
6832E476		183.7	201.6	210.3	209.9	214.3	218.9	219.6	226.2	227.2	229.2	237.9	241.7	251.0												
6832E477		189.6	198.5	202.9	213.5	214.9	216.2	215.9	214.6	219.6	225.2	228.8	232.0	244.9												
6832E478		192.2	200.9	208.3	212.3	212.5	212.2	216.2	214.8	219.4	220.4	224.9	228.4	231.1												
6832E479		201.4	208.6	210.5	218.8	221.4	222.4	222.0	225.8	229.1	233.0	240.0	245.4	254.7												
6832E480		169.3	174.3	181.4	187.9	194.3	197.2	201.4	204.4	207.9	209.0	221.1	218.2	220.1												
6832E481		196.5	196.8	198.6	207.7	212.9	212.7	215.7	212.0	207.7	209.0	221.1	218.2	220.1												
6832E482		203.2	212.4	218.0	227.8	231.7	227.9	223.7	230.0	234.5	239.7	251.6	256.7	267.2												
6832E483		177.6	188.7	194.2	200.5	214.2	200.4	205.2	211.7	212.7	223.1	231.7	241.0	247.0												
6832E484		200.4	209.4	208.9	216.9	214.5	217.0	221.7	222.9	236.0	236.9	249.5	259.6	265.0												
6832E485		190.2	201.6	206.4	216.4	217.8	221.8	220.6	221.5	222.6	235.3	240.8	254.3	265.1												
6832E486		189.1	198.6	207.7	213.8	215.7	218.5	220.9	225.3	229.7	231.0	247.7	259.3	255.1												
6832E487		186.0	198.6	201.3	205.9	211.4	215.2	215.9	224.3	220.0	224.3	226.4	233.3	240.0												
6832E488		188.5	191.7	200.4	208.5	210.1	217.7	218.3	216.8	217.5	227.4	233.9	248.9	252.8												
6832E489		181.3	195.5	199.3	205.0	202.2	205.0	212.3	216.9	217.7	226.6	227.1	222.8	223.5												
6832E490		176.6	186.3	188.6	195.7	196.5	200.0	203.8	202.9	202.2	206.6	211.2	212.2	216.1												
6832E491		194.3	200.5	203.1	212.9	217.2	218.9	221.3	226.9	223.6	232.8	239.2	242.6	247.3												

Note: Data for Dosing phase

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Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic				
Animal Group	91	119	147	175	203	231	259	287	315	343	371	399	427			
	Day of Phase															
	F e m a l e															
	A n i m a l s															
1	168.9	180.3	183.8	191.7	190.3	189.9	201.3	202.9	206.1	205.1	210.7	211.3	217.0			
	192.4	200.9	201.6	209.1	225.4	215.5	218.6	223.2	224.2	227.7	245.1	253.2	256.1			
	187.1	195.6	198.7	207.5	211.7	212.7	218.5	224.4	226.7	223.8	240.0	251.7	265.1			
	202.5	215.5	219.7	218.9	228.4	229.8	234.8	236.7	247.8	243.0	252.0	260.9	269.2			
	185.7	193.9	197.6	196.4	211.3	210.7	210.5	214.4	214.5	219.1	223.5	229.3	239.1			
	190.5	203.7	208.0	212.6	215.6	221.6	229.8	230.8	237.1	245.8	253.8	261.5				
	182.6	200.2	199.9	201.4	214.6	212.4	214.7	222.2	219.4	220.7	228.5	227.4	229.5			
	171.0	183.3	183.5	189.2	200.8	196.8	203.6	204.9	207.6	209.8	218.1	221.5	224.9			
	200.7	214.4	216.9	222.0	237.4	227.5	236.4	240.7	250.1	259.8	272.2	280.0	287.3			
	50	50	50	50	50	50	50	50	50	49	49	49	49			
Means	186.5	196.2	199.9	207.1	210.5	212.2	214.2	219.0	221.5	225.8	232.6	237.4	243.2			
Sdevs	10.1	9.9	10.5	10.6	10.8	10.5	10.2	10.7	12.2	12.9	15.5	17.6	19.6			
2	195.3	202.1	210.4	209.0	213.8	216.7	215.2	218.8	220.1	226.9	231.9	229.8	236.9			
	192.5	200.2	208.2	213.8	215.7	218.2	216.9	228.7	225.8	234.7	244.7	248.2	252.8			
	197.3	199.4	206.0	208.3	211.0	215.4	215.7	216.8	220.7	226.6	231.9	230.4	238.1			
	181.2	186.2	193.2	200.6	196.9	204.6	206.5	210.8	217.8	225.4	236.8	235.9	242.6			
	194.4	194.8	200.5	201.0	214.3	211.2	225.2	226.1	221.7	231.6	239.0	243.5	245.9			
	187.7	196.7	203.8	205.3	207.0	206.8	216.6	220.8	219.1	222.3	223.3	229.8	227.8			
	191.0	194.0	202.7	207.5	208.0	203.4	213.8	220.7	220.1	223.8	224.8	231.9	233.7			
	174.2	186.1	195.6	201.1	201.0	206.0	213.3	215.7	214.2	221.7	230.0	233.1	236.0			
	178.5	185.7	188.9	197.0	197.5	203.1	203.7	206.7	198.9	206.7	209.6	214.1	216.5			
	189.3	197.9	205.2	209.8	209.2	214.9	213.4	219.6	223.4	231.2	235.9	246.1	243.3			
	188.6	200.3	203.3	209.1	209.1	210.5	215.0	220.4	221.5	220.7	230.1	230.3	239.3			
	184.1	192.3	191.3	199.5	206.8	208.4	208.5	217.1	214.1	217.7	222.6	223.2	227.0			
	195.1	209.2	206.7	212.2	216.4	215.7	223.5	223.5	231.2	223.0	229.5	236.2	237.4			
	178.6	187.2	195.0	201.2	203.4	208.6	207.5	215.9	217.1	218.4	225.0	238.4	247.8			
	201.1	215.0	217.0	227.3	237.0	232.9	242.9	244.7	247.3	249.3	259.1	279.5	299.0			
	192.9	204.5	208.5	220.0	216.3	218.1	223.4	230.9	225.3	229.5	238.1	237.6	245.1			
	194.5	203.4	207.0	212.6	218.4	220.3	224.8	229.2	227.0	235.5	243.9	247.1	251.9			
	180.4	192.6	195.5	192.6	196.3	202.0	198.5	198.8	193.6	203.0	202.3	204.2	205.1			
	194.5	204.9	211.2	220.3	218.3	227.7	224.7	232.1	236.0	242.0	244.2	247.6	251.6			
	182.6	192.3	194.0	201.6	200.7	202.8	206.7	206.1	212.0	212.5	216.6	227.1	232.2			
	181.7	188.7	198.0	213.6	200.0	206.1	205.7	212.1	220.4	229.4	234.1	238.2	241.2			
	195.5	203.0	208.8	213.6	213.3	219.9	218.9	228.6	231.4	229.5	234.4	238.9	246.5			
	181.1	190.4	191.2	197.7	200.3	201.8	205.3	212.1	210.1	213.3	221.3	219.7	223.7			
	174.7	188.1	195.9	200.0	207.4	207.2	209.8	218.0	218.0	221.0	232.8	224.7	228.1			
	201.3	203.8	214.4	215.9	216.1	221.1	228.2	238.9	240.5	243.8	256.8	263.5	268.4			
	183.4	190.8	200.0	206.0	203.8	209.8	214.6	221.3	220.4	225.9	235.9	235.9	247.7			
	193.4	204.2	213.8	213.2	216.8	222.1	220.5	232.5	227.9	233.9	239.8	247.7	251.5			
	174.5	184.3	189.9	193.6	190.6	196.7	197.2	202.0	203.4	203.8	211.5	218.0	215.5			

Note: Data for Dosing phase

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Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic				
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427		
		F e m a l e										A n i m a l s				
6834F579	2	194.3	203.6	210.0	212.5	209.9	220.8	220.4	223.5	225.0	230.6	238.4	243.0	244.0		
6834F580		196.3	207.6	213.8	219.3	221.0	216.8	221.2	224.8	228.0	227.8	235.3	242.9	254.2		
6834F581		195.1	204.6	206.2	211.4	219.4	218.0	221.3	222.6	225.6	232.5	234.7	236.1	242.3		
6834F582		177.2	187.0	190.9	197.8	199.3	197.7	203.4	212.4	218.8	212.9	216.4	214.3	220.1		
6834F583		188.0	194.9	204.3	203.5	204.3	206.7	213.5	220.4	215.3	216.8	224.3	224.8	229.9		
6834F584		179.5	192.4	196.4	201.6	203.7	207.6	208.1	224.9	222.2	221.1	230.7	233.8	247.9		
6834F585		183.9	197.2	198.2	203.7	207.8	202.5	202.5	210.2	212.9	215.2	222.5	223.1	225.8		
6834F586		186.2	193.8	199.8	204.4	212.4	210.8	209.3	219.4	221.5	221.6	232.5	237.1	246.9		
6834F587		189.3	199.2	203.6	211.5	215.1	218.1	216.9	219.2	225.6	225.2	231.1	235.8	235.4		
6834F588		198.5	208.1	209.8	219.0	217.4	222.4	221.6	226.6	228.5	235.6	251.7	252.2	251.4		
6834F589		203.0	212.8	211.2	221.9	227.0	233.7	232.6	240.2	247.4	250.1	258.5	258.5	264.4		
6834F590		192.0	201.6	213.0	212.3	217.1	225.3	222.8	233.3	227.3	234.0					
6834F591		183.8	191.5	197.9	204.6	204.8	210.7	209.2	215.9	212.4	214.8	223.2	220.2	234.4		
6834F592		187.8	194.9	199.4	207.4	212.6	213.0	219.9	225.2	230.7	223.4	235.8	243.4	260.4		
6834F593		183.8	194.1	200.1	203.5	206.9	213.2	216.4	221.6	221.6	224.6	234.8	245.9	250.0		
6834F594		189.3	200.7	208.1	211.2	216.2	218.7	213.5	226.4	228.6	226.1	242.9	256.9	263.0		
6834F595		182.8	192.0	198.7	202.0	206.0	210.3	208.5	210.0	208.6	211.6	217.8	215.0	219.8		
6834F596		187.1	191.3	201.7	204.6	208.3	210.1	214.8	218.6	219.8	222.5	230.9	236.1	241.7		
6834F597		182.4	192.5	197.1	199.8	206.5	211.1	213.6	218.9	221.4	220.9	234.8	235.3	249.1		
6834F598		175.3	183.9	188.5	197.2	195.7	202.1	203.8	206.5	207.4	207.9	216.2	217.6	219.8		
6834F599		191.5	200.0	204.0	208.0	214.4	216.5	219.8	227.5	227.0	225.1	236.6	244.4	246.5		
6834F600		195.0	209.3	211.0	216.9	221.8	222.3	229.7	230.5	247.4	258.7	267.0	270.7	268.5		
	(n)	50	50	50	50	50	50	50	50	50	50	49	49	49		
	Means	188.0	197.0	202.4	207.3	209.9	212.8	214.9	220.8	222.0	225.2	232.7	236.5	241.8		
	Sdevs	7.6	7.8	7.5	7.8	8.8	8.5	9.0	9.5	10.9	11.4	12.8	14.8	16.3		
6836G651	3	188.6	197.7	198.1	208.5	207.7	214.7	214.4	225.7	221.5	224.5	229.3	232.6	229.6		
6836G652		189.8	198.1	206.4	212.0	216.6	217.0	216.5	229.0	226.8	231.7	235.6	240.2	246.5		
6836G653		174.1	181.4	185.9	196.7	199.8	198.8	199.9	207.3	209.0	211.3	219.6	218.2	221.0		
6836G654		181.9	190.4	194.2	197.2	204.8	205.8	203.3	210.2	213.3	212.0	217.1	222.3	230.4		
6836G655		191.9	200.5	203.2	210.2	211.0	214.8	213.7	219.1	221.0	224.7	231.5	236.9	246.8		
6836G656		189.1	196.4	198.0	206.4	207.6	209.6	211.5	216.1	222.7	221.6	229.3	234.3	237.8		
6836G657		182.5	189.7	191.8	198.7	208.0	207.8	210.0	219.9	218.0	223.8	223.6	233.6	238.8		
6836G658		183.3	193.3	191.7	202.0	208.5	208.1	213.3	219.6	222.0	243.1	246.5	259.0	258.0		
6836G659		192.0	196.6	202.2	206.3	212.9	217.0	213.2	222.3	218.3	220.4	225.6	234.7	242.0		
6836G660		181.9	189.3	196.9	205.8	207.4	209.0	213.2	221.7	222.1	220.6	229.3	235.3	240.8		
6836G661		177.3	188.4	192.4	207.9	202.2	204.2	203.9	211.4	209.9	209.2	204.7	215.4	214.0		
6836G662		170.6	181.4	186.7	191.9	194.9	196.9	197.4	203.7	202.3	201.4	205.6	205.8	210.4		
6836G663		186.7	202.7	206.7	208.3	217.9	219.0	216.6	221.9	219.3	223.8	229.5	230.4	233.1		
6836G664		177.6	185.5	191.2	195.2	199.7	206.5	198.4	207.4	203.7	210.2	210.6	211.1	214.0		
6836G665		156.1	161.8	169.0	170.6	174.9	180.6	179.4	187.4	186.6	182.0	189.8	207.2	211.5		

Note: Data for Dosing phase

Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic												
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427										
		Female										Animals												
6836G666	3	168.8	174.8	180.9	185.5	194.5	194.9	197.3	199.6	203.6	204.8	213.5	224.4	225.6										
6836G667		169.9	175.5	181.0	181.1	190.2	191.6	195.3	202.8	205.3	202.7	207.8	234.2	227.1										
6836G668		160.0	171.5	172.7	179.5	187.9	182.5	187.8	190.6	191.7	193.4	196.5	204.2	204.7										
6836G669		178.4	189.4	190.2	195.8	197.3	204.6	200.9	198.4	206.1	209.9	212.3	215.0	231.3										
6836G670		186.1	193.9	197.5	201.6	205.6	213.3	208.2	215.5	220.2	217.2	218.9	226.1	234.9										
6836G671		171.6	180.1	186.2	193.5	193.2	199.8	200.7	202.5	211.4	208.6	212.0	211.8	219.5										
6836G672		184.2	194.1	200.1	211.3	213.8	218.1	215.5	223.4	226.0	225.6	234.4	240.3	246.7										
6836G673		165.8	179.8	176.3	186.2	186.5	189.5	190.2	190.7	193.7	196.3	198.6	203.4	206.1										
6836G674		197.2	199.5	207.2	217.1	215.4	220.5	218.5	224.0	228.2	228.8	232.9	234.2	241.8										
6836G675		179.2	182.3	191.2	194.4	194.6	203.1	198.1	198.1	210.3	210.3	222.4	221.1	230.7										
6836G676		194.1	197.1	207.0	211.8	216.5	218.4	217.7	219.7	227.5	227.1	240.9	245.7	259.2										
6836G677		189.6	198.0	197.0	205.0	213.4	217.7	218.0	218.7	222.5	222.2	223.8	233.0	235.6										
6836G678		182.6	189.0	191.9	194.0	205.7	205.9	200.1	199.3	203.0	205.8	204.8	211.1	209.5										
6836G679		181.0	188.7	191.9	195.5	201.2	205.2	210.3	220.1	235.7	237.0	237.0	239.7	243.1										
6836G680		193.1	205.9	206.8	209.9	215.8	217.3	218.2	220.4	222.4	223.6	224.0	232.6	228.9										
6836G681		195.2	207.5	209.4	214.4	222.3	224.4	224.1	230.0	235.6	231.3	238.5	237.5	240.9										
6836G682		170.5	182.1	187.7	198.0	199.4	204.1	203.8	212.7	217.2	213.1	217.0	219.5	219.6										
6836G683		183.5	192.9	196.9	203.8	214.9	211.1	215.1	218.7	214.4	216.7	220.8	224.7	221.4										
6836G684		186.6	191.6	196.1	198.0	209.1	221.4	219.7	225.4	224.0	230.3	232.5	238.2	246.7										
6836G685		176.8	182.8	182.6	191.7	193.5	195.0	195.2	198.8	205.2	204.6	208.8	214.8	214.4										
6836G686		193.2	199.9	205.1	209.1	213.0	216.4	215.3	222.0	226.0	226.4	229.4	232.2	235.3										
6836G687		198.0	202.2	210.7	213.9	221.3	220.6	225.7	225.3	229.4	227.9	243.6	257.8	259.3										
6836G688		197.6	202.6	198.9	206.7	213.8	216.8	215.6	221.4	222.5	219.1	229.6	235.5	236.0										
6836G689		173.2	181.2	183.3	187.5	191.0	193.2	194.4	199.4	198.5	200.3	200.6	202.1	201.6										
6836G690		180.7	186.3	189.3	196.9	195.3	201.0	199.9	204.5	207.4	210.1	210.4	213.1	212.1										
6836G691		154.5																						
6836G692		166.5	178.9	179.4	186.8	191.8	195.8	198.9	203.8	211.3	208.5	218.4	228.2	232.0										
6836G693		195.4	198.6	209.9	215.3	220.7	222.2	220.3	219.7	231.7	226.6	233.2	240.3	237.6										
6836G694		173.7	184.6	179.9	188.0	194.0	197.0	195.6	202.9	204.9	203.6	206.8	216.8	216.4										
6836G695		177.8	188.6	189.2	200.4	205.6	206.1	205.0	208.2	213.8	227.9	229.5	230.3	233.9										
6836G696		173.7																						
6836G697		176.8	181.1	184.0	190.1	194.7	199.1	195.9	203.8	202.3	204.6	209.5	214.5	215.0										
6836G698		196.7	204.6	208.0	210.5	223.9	217.4	223.8	227.4	230.0	228.1	235.3	237.7	233.9										
6836G699		182.9																						
6836G700		154.8	163.3	171.2	180.0	186.5	190.9	188.4	196.5	193.7	188.1	196.7	202.2	201.5										
	(n)	50	47	47	47	47	47	47	47	47	47	47	47	47										
	Means	180.7	189.4	193.1	199.4	204.2	206.9	206.8	212.1	214.7	215.8	220.6	226.4	229.3										
	Sdevs	11.4	10.6	10.9	10.9	11.3	11.0	11.0	11.5	12.0	13.0	13.8	14.0	15.1										
6838H751	4	171.5	181.9	186.4	199.2	196.2	198.4	199.6	203.0	205.5	212.3	209.9	214.7	216.3										

Note: Data for Dosing phase

Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic												
Animal	Group	91	119	147	175	203	231	259	287	315	343	371	399	427										
		F e m a l e										A n i m a l s												
6838H752	4	183.1	190.8	193.4	210.0	202.3	204.5	203.8	207.6	209.3	215.2	217.2	222.9	228.0										
6838H753		171.7	182.1	186.5	201.4	197.9	199.4	202.0	203.2	205.8	214.8	212.8	220.6	226.4										
6838H754		177.6	184.7	184.5	196.1	190.6	193.8	200.1	201.5	207.0	209.6	210.7	210.9	212.5										
6838H755		156.8	165.8	167.8	182.6	180.6	180.4	186.2	184.9	193.9	198.4	197.0	205.9	212.2										
6838H756		167.1	173.7	178.0	189.4	191.2	191.1	191.6	194.4	199.5	203.5	206.2	215.1	217.1										
6838H757		177.4	179.4	181.0	199.3	194.0	197.1	202.6	201.9	202.4	204.9	205.7	223.9	226.9										
6838H758		191.2	197.3	199.4	219.4	211.0	209.3	211.0	214.6	216.7	221.6	223.1	229.8	232.3										
6838H759		169.8	177.2	176.7	193.4	189.5	190.0	197.2	196.4	196.8	199.5	199.2	203.8	205.3										
6838H760		173.6	182.0	181.9	193.0	198.3	198.6	201.0	202.1	206.0	211.2	210.3	215.1	214.4										
6838H761		177.5	187.6	190.2	199.3	201.9	197.6	202.3	207.5	209.7	209.9	206.0	218.5	217.0										
6838H762		161.9	168.9	172.0	179.9	184.4	185.1	187.7	189.4	194.8	200.4	200.3	204.7	205.1										
6838H763		177.8	185.6	186.6	192.4	196.9	198.8	202.1	206.2	205.9	212.1	211.1	220.6	220.2										
6838H764		174.0	180.3	185.0	186.7	194.5	194.1	196.3	197.0	199.8	202.8	202.3	206.5	208.3										
6838H765		192.3	196.6	201.1	207.7	211.1	210.7	212.7	212.5	220.0	212.2	223.2	224.4	229.3										
6838H766		163.4	172.0	178.3	184.7	188.0	189.6	192.6	193.4	195.7	199.4	199.4	207.3	216.8										
6838H767		169.5	176.4	181.4	189.2	196.8	195.5	205.9	202.3	206.0	211.4	211.0	217.8	218.4										
6838H768		169.9	172.8	176.3	181.3	190.1	189.4	191.2	192.4	188.1	194.3	193.6	199.0	196.8										
6838H769		167.2	175.5	178.6	186.2	192.4	190.8	190.6	195.8	195.4	198.3	197.2	200.8	200.1										
6838H770		181.9	193.3	194.8	198.4	208.7	207.8	207.8	211.1	211.1	213.5	218.4	222.9	225.4										
6838H771		166.8	177.1	178.7	178.2	183.2	183.5	183.8	184.7	188.7	188.5	191.9	192.8	189.8										
6838H772		182.9	188.8	192.1	197.5	206.4	208.6	206.9	208.7	209.9	217.3	218.8	221.2	218.0										
6838H773		174.1	177.8	181.9	190.8	190.3	199.0	198.6	203.7	208.4	205.0	207.0	210.0	211.6										
6838H774		167.3	168.5	174.3	182.4	180.7	184.5	185.0	185.4	193.7	187.9	188.9	198.4	197.5										
6838H775		169.6	177.0	180.9	189.4	194.9	194.7	196.0	197.6	198.1	203.3	206.1	207.5	206.2										
6838H776		172.6	183.9	188.2	195.1	198.2	193.4	199.2	202.3	209.5	209.3	209.2	220.3	219.2										
6838H777		164.6	164.8	168.6	176.3	177.2	182.6	181.8	184.4	190.7	191.0	192.9	201.1	198.9										
6838H778		168.3	174.2	178.6	184.5	188.1	192.7	192.8	187.8	191.6	196.7	197.0	204.6	203.3										
6838H779		178.0	184.6	192.9	198.0	202.0	203.8	204.6	204.3	209.7	211.6	214.4	227.1	229.7										
6838H780		176.8	181.8	189.6	193.9	198.4	199.3	196.8	200.8	201.0	200.2	207.6	205.9	208.0										
6838H781		181.1	184.7	189.2	196.6	202.5	205.1	203.8	208.1	209.5	211.4	208.8	219.8	220.0										
6838H782		175.3	181.7	185.1	193.4	193.5	193.7	193.9	193.7	198.4	198.7	195.7	205.8	208.6										
6838H783		183.0	188.0	192.0	203.6	202.3	202.9	202.2	212.0	210.5	214.5	212.9	220.3	220.7										
6838H784		176.0	178.6	186.6	191.1	193.8	197.1	199.4	199.7	203.5	205.0	206.4	209.1	208.0										
6838H785		188.2	199.1	197.9	208.6	210.9	216.1	213.6	218.9	227.5	220.5	224.8	234.9	236.9										
6838H786		179.3	186.2	190.4	193.7	200.2	203.9	199.3	202.5	201.7	208.8	210.8	213.0	212.0										
6838H787		184.5	192.4	197.9	203.9	207.1	208.8	210.7	210.5	216.2	217.7	221.1	228.1	231.8										
6838H788		165.0	175.0	182.9	189.0	190.3	194.5	192.3	195.0	196.5	199.5	200.3	212.9	218.2										
6838H789		189.3	195.1	204.4	206.9	209.2	214.0	212.8	209.5	214.6	217.3	219.5	222.4	227.5										
6838H790		173.3	184.6	188.9	193.2	198.1	200.8	196.9	198.9	201.1	201.2	202.3	205.0	209.4										
6838H791		176.5	191.7	199.7	206.2	207.5	213.0	205.5	219.7	221.9	225.5	237.5	245.8	246.0										
6838H792		174.6	185.8	190.5	198.2	200.3	202.9	202.5	208.1	207.3	212.5	212.7	217.4	217.3										

Note: Data for Dosing phase

Lovelace Respiratory  
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Animal body weights in (g)  
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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic			
Animal Group	91	119	147	175	203	231	259	287	315	343	371	399	427		
	Day of Phase														
	Female														
	Animals														
6838H793	175.6	187.2	188.7	196.8	201.0	205.3	208.2	210.2	213.7	215.5	216.2	222.6	224.6		
6838H794	170.5	176.2	177.9	189.8	192.8	196.3	201.9	201.5	203.8	211.3	216.6	221.0	221.9		
6838H795	181.6	184.4	187.9	192.0	195.7	196.9	198.9	206.0	206.7	208.3	211.1	210.4	210.4		
6838H796	175.0	182.1	188.2	191.0	196.0	198.9	199.2	205.1	204.1	208.3	205.5	211.4	214.6		
6838H797	174.1	182.1	185.4	198.4	199.1	200.3	196.5	207.9	207.2	212.7	209.6	221.0	228.8		
6838H798	169.9	172.9	176.6	183.0	185.9	190.9	189.0	195.2	198.2	201.5	201.8	205.2	207.7		
6838H799	168.7	178.1	182.0	184.3	188.7	187.2	186.6	192.1	201.7	202.9	209.4	222.0	219.2		
6838H800	185.8	195.1	201.1	206.0	210.0	212.6	213.6	223.2	219.0	218.2	222.8	227.2	227.5		
(n)	50	50	50	50	50	50	50	50	50	50	50	50	50		
Means	174.9	182.1	186.0	194.0	196.4	198.1	199.1	201.9	204.7	207.3	208.7	215.0	216.2		
Sdevs	7.7	8.2	8.5	9.1	8.4	8.6	8.1	9.2	8.7	8.6	9.8	10.4	11.0		

Note: Data for Dosing phase

Lovelace Respiratory  
Research Institute

Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic		
Animal	Group	459	487	512	539	Day	567	595	Phase	623	651	679	707	
		F e m a l e										A n i m a l s		
6832E451	1	271.9	282.5	279.5	272.4	278.9	278.0	278.0	284.0	285.7	285.1	282.8		
6832E452		243.5	260.9	244.0	247.5	246.6	254.7	254.7	259.5	263.5	270.3	268.4		
6832E453		242.1	250.6	239.8	245.2	243.6	251.2	251.2	248.0	249.7	246.3	217.8		
6832E454		262.4	265.1	262.9	276.2	266.3	271.9	271.9	294.8	298.5	281.4			
6832E455		279.5	288.2	286.7	287.6	289.3	290.1	290.1	277.1	281.5	277.2	275.7		
6832E456		273.8	270.3	269.9	269.7	270.9	271.0	271.0						
6832E457		246.7	249.7	246.2	252.2	264.0								
6832E458		236.9	257.9	243.7	248.9	254.7	252.9	252.9	251.1	254.2	259.1	256.7		
6832E459		252.1	263.1	257.9	254.4	273.6	263.8	263.8	229.5					
6832E460		248.4	255.0	258.0	255.4	271.0	266.8	266.8	271.7	270.3	277.5	274.8		
6832E461		260.1	281.0	279.4	284.6	286.5	290.3	290.3	293.5	301.1	299.7	297.6		
6832E462		288.8	290.1	288.4	283.8	291.8	288.3	288.3	293.5	304.5	307.0	306.1		
6832E463		244.9	255.2	256.8	255.5	271.8	270.6	270.6	271.6	279.6	283.4	280.0		
6832E464		244.7	249.8	246.0	250.9	252.4	247.7	247.7	252.0	254.5	256.2	261.1		
6832E465		221.7	225.7	225.5	221.3	225.8								
6832E466		247.0	257.5	257.3	252.5	252.4	265.4	265.4	266.6	265.2	232.8			
6832E467		288.8	288.4	294.5	290.8	286.7	295.0	295.0	300.5	305.1	308.3	304.2		
6832E468		251.9	254.1	253.8	259.5	262.0	276.5	276.5	274.5	275.9	253.1			
6832E469		236.9	232.4	232.7	240.2	242.0	243.2	243.2	236.7					
6832E470		273.6	279.9	279.3	235.6	256.3	260.2	260.2	266.1	268.0	183.8	159.4		
6832E471		252.6	253.4	255.9	254.5	192.7	193.6	193.6	187.7	186.7				
6832E472		184.2	187.0	187.2	189.3	283.3	294.0	294.0	289.6	266.4				
6832E473		276.8	280.0	274.9	277.5	283.3	258.4	258.4	216.8					
6832E474		248.9	250.5	243.3	251.2	262.0	253.1	253.1	260.3	262.3	260.2	260.1		
6832E475		244.5	249.5	245.5	251.7	253.1	257.3	257.3	285.1	288.6	285.8	272.2		
6832E476		268.7	271.5	269.9	267.0	280.0	287.3	287.3						
6832E477		250.8	265.9	259.0	255.4	259.8	251.3	251.3	256.3	265.7	262.5	267.1		
6832E478		238.1	241.7	239.6	242.6	251.6	279.0	279.0	285.0	286.9	284.2	262.4		
6832E479		276.7	276.4	282.0	276.2	286.6	230.0	230.0	233.3	239.9				
6832E480		229.9	234.6	231.6	231.1	234.4	291.3	291.3	297.2					
6832E482		289.8	294.5	289.8	294.3	291.7	267.8	267.8	264.2	273.4	274.4	276.7		
6832E483		262.3	264.8	256.7	259.1	263.9	267.9	267.9	255.7	213.1				
6832E484		272.7	278.0	276.8	273.0	273.9								
6832E485		268.5	257.8	258.6	260.5	258.2	259.2	259.2	256.5	265.6	265.3	262.5		
6832E486		258.5	262.6	274.6	264.8	271.0								
6832E487		263.2	271.6	276.9	273.7	271.8	269.6	269.6	260.5	266.3	223.7	268.8		
6832E488		269.8	232.2	235.2	231.7	245.2	251.1	251.1	253.2	263.0	264.0	268.8		
6832E489		229.8	223.7	233.3	221.7	233.0	237.5	237.5	241.3	252.6	232.7	239.5		
6832E490		223.9	223.7	253.4	257.1	242.0	246.1	246.1	240.3					
6832E491		253.3	256.7	253.4	257.1	242.0								
6832E492		226.6	226.9	185.9										

Note: Data for Dosing phase

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Animal	Group	459	487	512	539	Day	567	595	Phase	623	651	679	707
6832E493	1	281.9	284.9	282.4	282.2	Female	289.5	289.1	284.6	290.1	287.7	286.6	
6832E494		270.6	277.9	274.2	271.9		265.0	269.0	267.2	284.6	287.7	286.6	
6832E495		282.3	288.6	288.5	296.2		292.2	293.6	296.5	296.9	298.4	299.2	
6832E496		246.4	248.3	251.9	251.3		250.9	245.0	229.7	271.7	272.0	266.5	
6832E497		279.2	278.4	274.9	277.1		269.9	276.4	271.5	253.5	261.0	261.0	
6832E498		238.9	236.2	242.3	242.9		245.6	248.5	252.8	311.5	310.6	302.9	
6832E499		235.5	246.1	240.1	243.1		314.0	307.7	308.5	34	29	25	
6832E500		301.0	305.9	304.3	314.0		45	41	40	268.8	269.1	268.4	
		(n)	49	48	48	47		266.1	264.1	25.4	26.2	27.6	30.4
		Means	255.9	260.5	258.1	259.5		263.7	266.1				
	Sdevs	22.0	22.4	24.4	22.5		21.5	21.6					
6834F551	2	248.6	245.4	245.5	250.9		258.5	260.4	262.2	265.7	271.6	274.5	
6834F552		262.6	271.2	269.3	269.8		258.6	259.4	266.5	275.1	275.9	279.8	
6834F553		248.9	258.8	255.9	258.7		260.4	277.3	279.7	284.0	281.1	285.4	
6834F554		263.8	265.1	258.2	268.4		271.4	275.7	276.3	285.0	288.5	288.5	
6834F555		263.1	271.0	268.8	267.2		270.4	275.2	264.9	261.1	261.1	264.3	
6834F556		238.4	244.7	238.1	249.7		249.6	259.2	260.9	263.2	258.3	264.3	
6834F557		245.5	250.6	252.1	259.8		255.9	259.4	260.9	269.3	268.3	266.1	
6834F558		255.8	263.4	251.0	251.3		253.7	258.0	265.2	239.4	238.2	240.0	
6834F559		228.5	226.4	230.4	233.8		232.9	237.1	241.3	282.4	283.1	277.8	
6834F560		259.7	266.5	263.9	272.7		268.1	275.2	272.6	275.5	270.8	279.8	
6834F561		253.0	262.0	254.8	258.7		256.2	266.7	270.6	279.1	283.7	283.3	
6834F562		240.3	235.0	251.5	260.3		262.6	268.6	277.3	271.2	260.6	261.4	
6834F563		247.4	252.0	257.3	263.9		252.2	257.1	266.4	286.7	291.0	288.4	
6834F564		247.9	259.0	310.7	321.8		296.0	301.4	294.9	306.5	309.8	308.8	
6834F565		315.3	323.3	267.1	266.2		270.1	274.5	274.3	259.1	258.1	260.5	
6834F566		252.1	248.5	267.4	266.2		218.0	292.2	296.5	252.9	254.7	251.3	
6834F567		265.6	269.1	267.4	266.2		284.9	254.4	248.2	281.1	282.2	264.2	
6834F568		213.5	217.1	211.9	216.4		279.7	277.9	278.0	263.6	267.2	263.6	
6834F569	275.7	282.5	276.1	289.9		284.9	251.9	256.2	265.2	269.4	307.0		
6834F570	255.2	266.3	256.3	256.5		253.1	255.5	256.5	298.9	302.0	307.0		
6834F571	258.6	252.8	252.9	249.6		246.9	254.4	248.2	279.7	250.9	248.8		
6834F572	267.6	273.6	271.0	270.6		279.7	277.9	278.0	244.0	244.0	248.8		
6834F573	239.0	235.7	247.6	248.2		249.4	251.7	256.2	275.5	270.8	279.8		
6834F574	244.3	239.9	239.9	237.6		247.7	251.9	259.7	300.2	300.2	300.4		
6834F575	289.1	291.9	283.7	289.2		281.7	286.3	294.6	295.1	295.1	295.1		
6834F576	261.9	270.0	262.6	263.0		272.0	272.4	274.4	279.7	301.2	248.8		
6834F577	274.1	272.8	281.1	282.0		281.5	286.3	287.1	242.6	244.0	248.8		
6834F578	227.8	222.6	224.3	239.4		236.0	242.6	247.6	292.4	292.4	300.4		
6834F579	262.1	267.1	267.9	273.9		275.5	278.2	285.5					

Note: Data for Dosing phase

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Animal	Group	459	487	512	539	Day	567	595	Phase	623	651	679	707
F e m a l e s													
6834F580	2	255.3	270.1	259.9	269.2	265.3	270.8	270.8	281.3	287.4	289.7	296.4	
6834F581		269.4	266.8	261.8	274.3	278.4	276.3	276.3	280.0	280.2	282.1	278.5	
6834F582		238.4	230.2	230.3	229.2	232.0	241.4	248.2					
6834F583		248.7	246.1	251.6	251.5	253.2	263.0	267.0					
6834F584		263.3	265.0	263.7	266.3	275.2	276.3	277.1					
6834F585		245.5	237.3	243.5	236.9	232.2	236.3	237.2					
6834F586		258.8	266.7	270.2	268.7	272.5	278.6	281.5					
6834F587		250.7	255.6	257.8	256.4	265.9	264.3	272.3					
6834F588		261.8	258.6	256.8	252.8	262.5	258.4	257.8					
6834F589		279.8	285.3	292.3	285.8	290.4	291.0	291.5					
6834F591		237.6	252.2	244.3	252.2	249.1	252.3	255.1					
6834F592		262.9	275.3	268.3	276.1	268.4	273.1	280.0					
6834F593		260.2	267.8	254.9	266.5	257.1	265.4	276.6					
6834F594		282.2	279.4	277.6	287.3	280.7							
6834F595		221.5											
6834F596		248.1	257.4	255.7	261.6	259.5	265.5	266.2					
6834F597		264.8	269.9	266.7	275.0	271.9	274.4	271.3					
6834F598		229.7	230.3	231.0	235.4	236.9	241.1	244.4					
6834F599		266.6	264.3	263.7	256.5								
6834F600		281.5	283.9	274.1	277.5	271.1	277.3	280.6					
	(n)	49	48	47	46	45	42	42					
	Means	255.8	259.7	258.3	261.9	261.5	266.3	269.7					
	Sdevs	18.1	19.6	17.7	18.6	16.8	15.2	14.8					
M e a n s													
6836G651	3	252.1	247.3	250.7	249.2	252.4	266.1	258.0					
6836G652		265.2	263.0	260.3	260.4	266.7	267.4	274.0					
6836G653		229.8	205.2										
6836G654		249.8	250.1	253.0	256.1	261.4	264.0	262.8					
6836G655		252.4	251.7	257.2	250.2	252.9	255.9	262.0					
6836G656		246.1	251.7	245.6	249.7	247.7	260.1	258.0					
6836G657		248.2	250.4	246.4	254.4	253.3	258.5	252.9					
6836G658		272.1	272.4	269.9	272.6	264.3	262.7	267.1					
6836G659		256.8	260.3	252.3	262.1	259.4	263.8	260.4					
6836G660		257.7	261.5	263.3	273.4	282.9	290.6	301.3					
6836G661		216.5	214.9	217.6	219.3	217.4	227.4	228.4					
6836G662		212.7	215.8	213.1	214.5	213.8	219.5	217.7					
6836G663		240.0	239.4	233.6	238.9	238.4	255.1	252.4					
6836G664		218.0	221.1	222.5	220.9								
6836G665		219.9	211.0	226.6									
6836G666		227.5	233.4	244.2	231.0	226.3	233.6	231.4					
6836G667		236.0	247.2	244.3	256.5	252.5	257.2	259.8					
	(n)	35	35	35	35	35	35	35					
	Means	255.8	259.7	258.3	261.9	261.5	266.3	269.7					
	Sdevs	18.1	19.6	17.7	18.6	16.8	15.2	14.8					
	(n)	35	35	35	35	35	35	35					
	Means	255.8	259.7	258.3	261.9	261.5	266.3	269.7					
	Sdevs	18.1	19.6	17.7	18.6	16.8	15.2	14.8					

Note: Data for Dosing phase

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic		
Animal	Group	459	487	512	539	Day	567	595	Phase	623	651	679	707	
		F e m a l e												
		A n i m a l s												
6836G668	3	206.2	213.2	205.8	207.9	212.1	208.0	213.0	218.9	218.4	210.3			
6836G669		245.7	250.1	243.2	243.7	241.7	252.0	255.1	258.2	254.6	249.9			
6836G670		249.3	251.1	244.0	250.7	253.6	259.0	263.1	264.4	264.2	264.6			
6836G671		233.0	234.2	228.6	227.4									
6836G672		267.4	273.8	268.4	274.1	270.4	276.7	278.3	281.6	285.3	279.1			
6836G673		211.3	212.9	211.3	215.0	219.4	229.2	221.5	234.5	237.1	237.6			
6836G674		259.6	262.4	256.8	264.5	270.3	271.8	273.8	278.0	277.6	273.6			
6836G675		240.5	245.2	238.0	243.2	241.8	254.0	257.3	264.7	263.1	259.7			
6836G676		263.3	268.9	269.4	273.9	270.0	272.6	273.8	239.6					
6836G677		244.2	259.9	247.6	257.6	254.3	255.6	256.1	257.9	262.2	257.9			
6836G678		215.8	216.0	217.0	218.2	219.2	228.6	223.8	229.5	230.1				
6836G679		255.1	258.0	251.0	257.9	252.9	246.7	253.7	228.3					
6836G680		239.0	239.0	240.7	243.0	243.9	253.6	266.0						
6836G681		254.7	261.2	253.6	251.7	255.9	256.2	257.6	265.2	268.5	273.2			
6836G682		230.0	233.3	235.8	237.3	238.9	257.1	248.0						
6836G683		230.1	234.3	231.4	234.8	230.2	232.1	232.8	238.7	243.1				
6836G684		269.0	262.4	265.9	271.3	274.9	274.4	275.2	284.9	292.3	293.9			
6836G685		225.2	228.5	226.7	188.2									
6836G686		246.8	246.6	247.7	247.8	250.2	253.3	257.1	252.6	271.2	242.9			
6836G687		268.8	268.7	265.2	269.3	266.4	267.9	263.6	268.1	222.7				
6836G688		245.0	253.2	251.7	252.4	259.4	255.5	253.2	252.6					
6836G689		213.8	209.8	211.0	210.3	213.0	225.7	225.9	232.1	236.1	232.3			
6836G690		219.1	219.2	219.5	217.2	217.6	220.6	219.2	222.2	225.4	221.2			
6836G692		240.6	243.5	243.7	246.7	236.8	247.7	248.9	249.8	248.9	250.1			
6836G693		249.2	252.7	251.9	254.2	250.0	261.4	261.2	261.4	254.1	252.2			
6836G694		223.2	226.7	226.4	234.3	242.3	247.9	247.3	248.9					
6836G695		240.9	251.9	248.4	252.0	244.2	248.1	216.5	218.3	243.9	248.4			
6836G697		220.5	227.5	226.5	230.3	227.0	230.1	231.9	236.2					
6836G698		245.9	252.8	249.9	255.1	255.2	260.0	222.6	236.2					
6836G700		205.2	210.7	206.9	207.8	208.0	211.7	205.5	205.9	201.5	204.4			
		47	47	46	45	42	42	42	39	34	31			
		239.6	241.8	241.0	243.3	245.5	250.9	249.7	252.5	255.6	256.1			
		18.3	19.4	17.8	20.9	19.3	18.6	21.2	22.1	24.2	25.2			
6838H751	4	224.4	235.3	238.3	231.7	232.4	235.6	233.1	216.2	240.1	207.9			
6838H752		235.9	243.7	241.2	241.0	238.0	240.2	246.6	246.6	246.5	238.1	207.2		
6838H753		241.2	243.5	242.9	241.0	239.9	243.6	235.1	235.1	242.7	257.4	263.2		
6838H754		221.2	219.9	224.9	226.7	234.1	243.1	242.4	242.4	251.4	231.3	227.5		
6838H755		217.9	219.5	227.9	224.0	226.5	232.1	230.0	230.0	232.9	236.2	227.5		
6838H756		226.5	238.5	236.4	231.6	240.8	240.0	238.6	238.6	249.8	250.8	251.3		

Note: Data for Dosing phase

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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic		
Animal	Group	459	487	512	539	Day	567	595	Phase	623	651	679	707	
		Female										Animals		
6838H757	4	230.2	233.9	233.0	232.0	233.7	226.2	224.0		227.8	217.5			
6838H758		236.8	235.2	233.9	237.1	235.5	241.7	243.9		261.1	257.8		259.3	
6838H759		209.0	208.2	210.9	209.7	212.1	211.3	211.8		216.3	221.9		232.5	
6838H760		223.8	225.9	225.0	222.5	222.6	224.7	226.4		232.6	239.1		233.9	
6838H761		224.0	222.3	223.9	236.7	226.6	231.1	231.9		234.5	238.7		242.6	
6838H762		219.2	221.9	221.2	226.8	225.6	234.2	227.5		234.5	238.7		236.6	
6838H763		235.6	245.2											
6838H764		216.9	223.1	214.2										
6838H765		234.4	241.4	235.6	236.5	236.7	242.7	240.1		257.7	255.5		260.9	
6838H766		225.6												
6838H767		234.0	248.6	238.1	241.9	252.3	246.2	241.2		254.8	253.9		247.1	
6838H768		205.1	198.2	202.1	202.7	204.1	212.5	214.0		225.4	229.3		234.6	
6838H769		237.0	209.5	208.4	207.3	209.5	216.6	221.1		221.7	225.6		229.4	
6838H770		237.0	242.4	245.6	240.9	243.8	240.8	241.4		210.7				
6838H771		198.9	198.6	199.9	199.6	198.5	201.6	208.7		210.7	208.4		208.7	
6838H772		225.0	233.1	237.2	240.6	241.1	252.6	246.9		251.3	239.2		226.0	
6838H773		225.2	221.7	226.3	233.6	224.7	241.0	236.0		242.9	247.6		255.0	
6838H774		207.5	190.2											
6838H775		211.4	212.3	214.6	213.2	209.7	216.7	228.3		221.0	211.9			
6838H776		235.5	240.1	238.3	248.8	236.4	249.1	246.8		255.2	258.3		251.8	
6838H777		225.5	221.7	219.6	213.0	223.8	224.9	227.8		228.5	236.8		236.0	
6838H778		213.7	213.2	218.2	218.3	219.2	227.6	228.0		229.5	236.4		238.1	
6838H779		242.2	245.6	243.8	238.7	246.6	251.3	248.3		250.1	256.8		263.3	
6838H780		218.3	227.5	215.8	217.0	219.4	219.1	222.4		226.0	228.2		230.7	
6838H781		233.8	246.1	233.4	238.9	238.8	244.4	241.5		245.0	250.1		252.0	
6838H782		215.3	216.6	219.6	224.2	221.1	226.7	227.2		237.6	240.6		244.6	
6838H783		231.5	240.9	239.2	242.3	236.8	243.0	243.9		244.3	237.8		196.2	
6838H784		213.2	219.2	215.8	219.8	219.3	226.1	223.8		227.0	228.5		232.3	
6838H785		256.3												
6838H786		217.6	222.3	223.9	223.1	223.1	227.0	220.9		230.9	238.8		241.9	
6838H787		217.7	257.2	253.3	247.0	247.5	256.0	255.2		254.6	257.0		257.5	
6838H788		231.0	229.1	229.1	226.6	222.8	228.4	233.3		240.7	242.5		243.4	
6838H789		242.7	250.6	243.2	240.2	240.5	241.4	247.6		251.9	248.6		248.6	
6838H790		216.1	220.3	217.7	217.8	218.6	222.5	225.1		235.3	233.7		232.7	
6838H791		261.8	266.3	259.0	265.7	259.5	268.8	266.6		263.2	258.0		272.7	
6838H792		229.7	231.5	222.8	223.6	229.0	232.7	232.6		231.4	235.2		232.1	
6838H793		229.8	229.5	234.8	231.7	227.6	235.9	232.5		234.9	230.7		233.7	
6838H794		234.7	240.4	235.0	233.8	230.4	241.8	241.0		252.7	245.5		253.2	
6838H795		219.9	225.7	225.6	231.8	230.3	230.1	233.3		234.9	229.1		224.5	
6838H796		237.4	229.4	226.4	226.9	228.5	228.1	229.2		234.9	231.8		234.6	
6838H797		245.9	246.0	242.0	245.6	243.0	241.8	241.8						

Note: Data for Dosing phase

Lovelace Respiratory  
Research Institute

Animal body weights in (g)  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01										
Animal Group	459	487	512	539	Day	567	595	Phase	623	651	679	707
6838H798	210.3	218.6	215.5	213.7	Female	211.5	223.2	Animals	218.4	230.8	234.3	238.0
6838H799	228.2	233.9	225.8	229.8		224.1	230.4		224.7	220.4	215.0	218.3
6838H800	235.0	236.9	235.5	235.6		236.2	239.2		238.8	240.2	238.0	241.3
(n)	50	48	46	45		45	45		44	44	42	39
Means	226.3	229.6	228.6	229.6		229.4	234.1		233.6	237.3	238.4	239.3
Sdevs	13.0	15.5	12.7	13.2		12.7	12.8		11.7	13.6	13.0	16.1

Note: Data for Dosing phase

I-4 Females

Summary Statistics - Body Weight Data

LoveLace Respiratory Research Institute  
 Mean Animal Body Weights in (g)  
 Study number: FY01013F  
 Printed: 10-Jul-06  
 Page: 1  
 Rat/F344/N  
 Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic

Group(s)	Day of Phase															
	16 <sup>1</sup>	7 <sup>1</sup>	14	21	28	35	42	49	56	63	70	77	84			
1	(N)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
	Means	125.4	135.4	145.6	153.0	156.6	161.3	165.3	170.1	172.1	176.1	181.6	183.7	185.1	185.1	
	Sdevs	5.3	5.9	7.1	8.1	9.6	9.9	8.3	8.8	8.9	9.3	9.2	9.5	9.8	9.8	
2	(N)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
	Means	123.6	135.2	144.8	153.1	155.8	160.8	165.3	170.8	173.8	178.9	181.3	183.7	185.2	185.2	
	Sdevs	4.0	4.6	4.9	6.6	7.9	6.7	6.7	6.7	6.9	7.2	7.3	7.3	8.0	8.0	
3	(N)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
	Means	122.8 <sup>*</sup>	133.8	141.9 <sup>*</sup>	147.5 <sup>+</sup>	152.7	156.1 <sup>%</sup>	160.9 <sup>%</sup>	164.5 <sup>\$</sup>	168.5	173.7	175.9 <sup>+</sup>	177.2 <sup>\$</sup>	179.5 <sup>%</sup>	179.5 <sup>%</sup>	
	Sdevs	6.6	7.4	8.4	8.9	9.2	9.7	10.1	10.5	10.4	10.5	10.3	10.4	11.0	11.0	
4	(N)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
	Means	121.8 <sup>\$</sup>	130.1 <sup>\$</sup>	136.2 <sup>\$</sup>	142.3 <sup>+</sup>	148.7 <sup>+</sup>	151.7 <sup>\$</sup>	154.5 <sup>\$</sup>	159.5 <sup>\$</sup>	162.6 <sup>\$</sup>	168.1 <sup>\$</sup>	169.8 <sup>+</sup>	170.9 <sup>\$</sup>	172.9 <sup>\$</sup>	172.9 <sup>\$</sup>	
	Sdevs	4.9	5.4	6.3	6.7	7.2	6.9	7.5	7.4	7.6	7.8	7.8	7.8	7.5	7.5	

Note: 1 = Pretest phase; " = Dosing phase  
 \* (+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 % (\$) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

LoveLace Respiratory Research Institute  
 Mean Animal Body Weights in (g)  
 Study number: FY01013F  
 Printed: 10-Jul-06  
 Page: 2  
 Rat/F344/N  
 Study start date: 30-May-01  
 Inhalation/whole-body/Chronic

Group(s)	Day of Phase												
	91	119	147	175	203	231	259	287	315	343	371	399	427
1	(N)	50	50	50	50	50	50	50	50	49	49	49	49
	Means	186.5	196.2	199.9	207.1	210.5	212.2	214.2	219.0	221.5	225.8	232.6	237.4
	Sdevs	10.1	9.9	10.5	10.6	10.8	10.5	10.2	10.7	12.2	12.9	15.5	17.6
2	(N)	50	50	50	50	50	50	50	50	50	49	49	49
	Means	188.0	197.0	202.4	207.3	209.9	212.8	214.9	220.8	222.0	225.2	232.7	236.5
	Sdevs	7.6	7.8	7.5	7.8	8.8	8.5	9.0	9.5	10.9	11.4	12.8	14.8
3	(N)	50	47	47	47	47	47	47	47	47	47	47	47
	Means	180.7\$	189.4+	193.1\$	199.4+	204.2+	206.9*	206.8+	212.1+	214.7+	215.8\$	220.6\$	226.4\$
	Sdevs	11.4	10.6	10.9	10.9	11.3	11.0	11.0	11.5	12.0	13.0	13.8	14.0
4	(N)	50	50	50	50	50	50	50	50	50	50	50	50
	Means	174.9\$	182.1+	186.0\$	194.0+	196.4+	198.1+	199.1+	201.9+	204.7+	207.3\$	208.7\$	215.0\$
	Sdevs	7.7	8.2	8.5	9.1	8.4	8.6	8.1	9.2	8.7	8.6	9.8	10.4

Note: Data for Dosing phase  
 \*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

LoveLace Respiratory Research Institute  
 Mean Animal Body Weights in (g)  
 Study number: FY01013F  
 Printed: 10-Jul-06  
 Page: 3  
 Rat/F344/N  
 Study start date: 30-May-01  
 Inhalation/whole-body/Chronic

Group(s)	Day of Phase											
	459	487	512	539	567	595	623	651	679	707		
1	(N)	49	48	48	47	45	41	40	34	29	25	
	Means	255.9	260.5	258.1	259.5	263.7	266.1	264.1	268.8	269.1	268.4	
	Sdevs	22.0	22.4	24.4	22.5	21.5	21.6	25.4	26.2	27.6	30.4	
2	(N)	49	48	47	46	45	42	42	40	38	35	
	Means	255.8	259.7	258.3	261.9	261.5	266.3	269.7	273.3	274.7	273.6	
	Sdevs	18.1	19.6	17.7	18.6	16.8	15.2	14.8	15.2	15.9	16.7	
3	(N)	47	47	46	45	42	42	39	34	31		
	Means	239.6\$	241.8+	241.0\$	243.3\$	245.5\$	250.9\$	249.7\$	252.5\$	255.6%	256.1	
	Sdevs	18.3	19.4	17.8	20.9	19.3	18.6	21.2	22.1	24.2	25.2	
4	(N)	50	48	46	45	45	45	44	44	42	39	
	Means	226.3\$	229.6+	228.6\$	229.6\$	229.4\$	234.1\$	233.6\$	237.3\$	238.4\$	239.3\$	
	Sdevs	13.0	15.5	12.7	13.2	12.7	12.8	11.7	13.6	13.0	16.1	

Note: Data for Dosing phase  
 \*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

APPENDIX J

INDIVIDUAL ANIMAL SUMMARIES OF CLINICAL OBSERVATIONS

J-1 Males

J-2 Females

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

J-1 Males

Lovelace Respiratory  
Research Institute

Individual Clinical Observations Table

Study number: FY01013M

Dates 22-May-01 to 20-May-03

Study start date: 23-May-01

Printed: 14-Jun-04  
Page: 1

Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6831E401	1 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	665" 609"-665
6831E402	1 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Sore (superficial wound/lesion)	567" 546"-567
6831E403	1 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	602"-609 539", 595
6831E404	1 Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body dorsal Tissue mass/Body ventral	519"-644 455"-467, 560-630 637"-644
6831E405	1 Appendages/injured/Left-rear-foot-injured Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	567"-602 658" 602"-630 112"-119
6831E406	1 Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes None/Dead	406", 700-721 721" 707"-714 630", 679 112", 154, 189-203 728"
6831E407	1 Appendages/injured/Right-front-foot-injured Eyes/Left eye red discharge Hair/skin/Skin growth (small) Tissue mass/Body dorsal Toes/Injured toes	259"-294 294", 343-385, 413-480, 495-509, 519-539 550, 580, 609, 651-658, 679-728 616"-714 474"-480 112"-119, 147-175, 189-196, 231
6831E408	1 Toes/Injured toes None/Dead	112"-119, 154-161, 189-203 210"
6831E409	1 Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Movements/activity/Hypoactivity Tissue mass/Body dorsal Toes/Injured toes Total body/Emaciated	546"-630 495"-519 616"-630 392"-420, 441, 474-480 455"-467 112"-119, 189-196 616"-630
6831E410	1 Appendages/injured/Tail injured	474"-480

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory Research Institute  
 Individual Clinical Observations Table  
 Study number: FY01013M  
 Dates 22-May-01 to 20-May-03  
 Study start date: 23-May-01  
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 Page: 2  
 Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6831E410	1 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	474"-480, 495-580, 602-637 637" 546"-637 455"-467
6831E411	1 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body dorsal	539" 672" 602"-672 502"-539 420"-467
6831E412	1 Tissue mass/Body ventral Toes/Injured toes Toes/Missing toes None/Dead	546"-550 287"-301 406" 560"-567
6831E413	1 Feces/urine/Urine stain Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Genital area	448", 509-515 707"-714 546"-616, 630-700 525"-539
6831E414	1 Eyes/Left eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) None/Dead	36"-63, 84-91, 140, 182, 203-210, 238-245 406-434, 448-455, 474-480, 515-539, 580-609 609" 546"-609 616"
6831E415	1 Hair/skin/Skin growth (small) Tissue mass/Body ventral	546"-728 595"-609
6831E416	1 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body ventral	315"-322 665" 658" 546"-567, 609-616, 630-665 502"-539
6831E417	1 Appendages/injured/Left-front-foot-injured Appendages/injured/Right-front-foot-injured Appendages/injured/Left-rear-foot-injured Appendages/injured/Tail injured Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	259" 259" 133"-140, 364 210"-218 336", 357 728" 560"-728 189"-218, 301-322

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory Research Institute  
 Individual Clinical Observations Table  
 Study number: FY01013M  
 Dates 22-May-01 to 20-May-03  
 Study start date: 23-May-01  
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 Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6831E418	1 Hair/skin/Skin growth (small) Toes/Injured toes	546"-728 189"-196
6831E419	1 Appendages/injured/Right-rear-foot-injured Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	546"-560 98"-480, 515-693 679"-693 546"-693 308"-322
6831E420	1 Appendages/injured/Left-front-foot-injured Appendages/injured/Right-front-foot-injured Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body ventral Toes/Injured toes Toes/Missing toes Total body/Emaciated	455" 455" 525"-567 112", 509 495" 686"-700 546"-595, 644-700 602"-609 343" 336" 700"
6831E421	1 Hair/skin/Jaundiced (yellow tinge to skin)	574"
6831E422	1 Eyes/Right eye red discharge Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	259"-364, 413-467, 488-495 546"-728 502"-515
6831E423	1 Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body dorsal	406" 595" 580"-595 455"-467
6831E424	1 Feces/urine/Urine stain Eyes/Left eye red discharge	273"-357, 385-623 57"-78, 140-147, 218, 238-245, 301-371 385-467, 488-515, 525-616 623"
6831E425	1 Hair/skin/Pallor (pale/grey tinge to skin) Appendages/injured/Right-rear-foot-injured Hair/skin/Skin growth (small)	441"-467 580"-616
6831E426	1 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body dorsal	707" 700" 574"-707 488"

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory  
Research Institute

## Individual Clinical Observations Table

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Page: 4Study number: FY01013M  
Dates 22-May-01 to 20-May-03  
Study start date: 23-May-01

Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6831E426	1 Tissue mass/Body ventral None/Dead	546"-567 714"
6831E427	1 Appendages/injured/Left-rear-foot-injured Ears/nose/Red nasal discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	686"-707 154" 495" 721"-728 574"-623, 644-658
6831E428	1 Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body dorsal	623" 574" 525"-567 515"
6831E429	1 Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	658" 550"-616, 644-658 189"-203
6831E430	1 Eyes/Corneal opacity left eye Eyes/Micro-ophthalmia left eye Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	189"-480, 495-651 161"-182 651" 580"-616 546"-574
6831E431	1 Total body/Emaciated None/Dead	385" 392"-399
6831E432	1 Eyes/Left eye red discharge  Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	57"-78, 140-147, 182, 210-218, 315-329 427-480, 495 98" 630", 651 616"-623, 637-644 587"-651 112"
6831E433	1 Feces/urine/Urine stain Eyes/Right eye red discharge  Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	350"-357 84", 105, 119-140, 218-231, 259-294, 308-329 378-413, 448-480, 546-567, 602-672 658"-672 644"-651 580"-672 182"
6831E434	1 Appendages/injured/Tail injured	378"

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory Research Institute  
 Individual Clinical Observations Table  
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 Dates 22-May-01 to 20-May-03  
 Study start date: 23-May-01  
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 Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6831E434	1 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes Total body/Emaciated	651" 580"-616 182", 210-218 651"
6831E435	1 Eyes/Left eye red discharge Eyes/Right eye red discharge  Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body ventral Toes/Injured toes	119", 413, 546 78", 140, 161-175, 218, 231, 259-301, 315-329 385, 434, 448, 467-474, 488-495, 509, 532 550-587, 616-721 728" 546"-728 679"-714 154"-175
6831E436	1 Appendages/missing/Tail missing (tip/portion) Feces/urine/Urine stain Hair/skin/Skin growth (small)	371"-480, 495-728 329"-357, 434-480, 495, 532-587 602"-616, 665-728
6831E437	1 Hair/skin/Skin growth (small) Tissue mass/Body ventral	546"-728 672"-693
6831E438	1 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body dorsal	651"-679 602"-616 560"-679
6831E439	1 Tissue mass/Body dorsal	315"-364
6831E440	1 Eyes/Left eye red discharge Eyes/Right eye red discharge  Hair/skin/Skin growth (small) Tissue mass/Body dorsal	154"-175, 502-519 98"-105, 182-189, 308-336, 378-385, 399-420 441-480, 525-539, 609-728 550"-728 665"-728
6831E441	1 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	595"-623 495", 515-623 623" 574"-623 515"
6831E442	1 Hair/skin/Skin growth (small) Toes/Injured toes	602"-679, 721-728 287"-336
6831E443	1 Eyes/Left eye red discharge Eyes/Right eye red discharge	495" 189"-196, 329-336, 385, 434-448, 515-519

Note: ! = Pretest phase; " = Dosing phase

Lovelace Respiratory Research Institute  
 Individual Clinical Observations Table  
 Study number: FY01013M  
 Dates 22-May-01 to 20-May-03  
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 Page: 6  
 Rat/F344/N  
 Study start date: 23-May-01  
 Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6831E443	1 Eyes/Right eye red discharge Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	539, 616-637, 672-693, 707 580"-728 532"-574
6831E444	1 Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral Toes/Injured toes Total body/Emaciated	126"-133, 218-231, 399-658 651"-658 532"-539, 580-658 301" 287"-329 651"-658
6831E445	1 Eyes/Left eye red discharge Eyes/Corneal opacity left eye Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Right-front-leg/foot	495"-502 609"-623 623" 587"-623 98"-133
6831E446	1 Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral	602"-728 679"-728 495"-509
6831E447	1 Hair/skin/Jaundiced (yellow tinge to skin)	637"
6831E448	1 Appendages/injured/Left-rear-foot-injured Eyes/Corneal opacity right eye Hair/skin/Skin growth (small)	161" 686"-707 602"-728
6831E449	1 Eyes/Right eye red discharge Hair/skin/Skin growth (small)	189", 399-448, 467-679, 693-728 602"-728
6831E450	1 Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Toes/Injured toes None/Dead	406" 252"-364, 385-413 78", 98-105 580" 154"-189 587"
6833F501	2 Hair/skin/Skin growth (small)	623"-637
6833F502	2 Appendages/injured/Tail injured Eyes/Left eye red discharge Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral	140" 364"-686, 700-714 574"-623 665"-686, 721-728 630"-658

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6833F502	2 Tissue mass/Tail	700"-714
6833F503	2 Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	133"-196, 301-364 721" 546"-721
6833F504	2 Appendages/injured/Left-front-foot-injured Eyes/Left eye red discharge  Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	550"-587 98"-126, 140-182, 245-252, 266-273, 301 343-364, 378-385, 399-406, 434-474, 488-509 525-539, 560-679 546" 679" 665"-672 580"-679
6833F505	2 Appendages/injured/Tail injured Eyes/Left eye red discharge Hair/skin/Skin growth (small) Tissue mass/Tail	343"-350 91", 140-161, 182, 210-218, 308-728 595"-630 371"-616
6833F506	2 Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	630"-637 637" 574"-616 455"-467
6833F507	2 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	651"-658 574"-658
6833F508	2 Appendages/injured/Right-rear-foot-injured Appendages/injured/Tail injured Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Right-rear-leg/foot Toes/Injured toes	480"-488 495"-509, 574-686 721" 602"-700 495"-502 509" 467"
6833F509	2 Swelling/Swollen abdomen	574"-587
6833F510	2 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Skin growth (small) Tissue mass/Face	637"-644 126", 154-161, 364-609, 623-644 595"-644 644"
6833F511	2 Ears/nose/Injured nose	63"-70

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6833F511	2 Eyes/Right eye red discharge Hair/skin/Skin growth (small)	36"-70 595"-728
6833F512	2 Hair/skin/Jaundiced (yellow tinge to skin) Tissue mass/Body ventral	480" 392"-399
6833F513	2 Feces/urine/Urine stain Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body ventral Tissue mass/Genital area	329"-343, 515-519 728" 546"-595 602"-728 539"
6833F514	2 Eyes/Left eye red discharge Hair/skin/Sore (superficial wound/lesion) None/Dead	364", 399-406, 427-467, 495, 509 539"-574 580"-587
6833F515	2 Appendages/injured/Tail injured Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin)	308"-488 112", 133-225, 238-546 546"
6833F516	2 Feces/urine/Urine stain	112", 133-161, 182-287, 301-364, 385, 399-467 488-539, 550 623"-728 546"-567
6833F517	2 Feces/urine/Urine stain Hair/skin/Pallor (pale/grey tinge to skin) Toes/Missing toes	112", 133-161, 182-287, 336-364, 448-467 495 623"-630 406"
6833F518	2 Discolor/Body-dorsal Hair/skin/Dermatitis Hair/skin/Ulcer (open sore, skin broken) Tissue mass/Body ventral	509"-602 609"-644 560"-644 644"
6833F519	2 Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain	580"-587, 714-728 378", 495-519
6833F520	2 Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	721"-728 693"
6833F521	2 Eyes/Left eye red discharge Hair/skin/Skin growth (small)	210"-225, 308-322, 343-413, 427-441, 455-495 515-532, 574-580, 609-623, 693-700, 714-728 644"-651

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6833F521	2 Toes/Injured toes	413"
6833F522	2 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body dorsal None/Dead	231" 679"-686 595"-616, 637-651, 665-686 686" 693"
6833F523	2 Appendages/injured/Tail injured Appendages/missing/Tail missing (tip/portion) Feces/urine/Urine stain Hair/skin/Sore (superficial wound/lesion)	218"-238 245"-728 112", 154-182 728"
6833F524	2 None/Dead	399"
6833F525	2 Appendages/injured/Tail injured Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Tail	378"-385 580"-595 502"-574 392"-474
6833F526	2 Feces/urine/Urine stain	133"-147, 182, 238-574, 587-595, 651-658 672-686
6833F527	2 Eyes/Left eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	364", 378, 495, 550 574" 550"-574
6833F528	2 Appendages/injured/Right-rear-leg-injured Hair/skin/Jaundiced (yellow tinge to skin) None/Dead	154"-161 474" 480"
6833F529	2 Feces/urine/Urine stain Tissue mass/Body dorsal None/Dead	189"-203, 231-480 474"-480 488"-495
6833F530	2 Appendages/injured/Tail injured Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) None/Dead	455"-474 707" 580"-700 519"-700 714"
6833F531	2 Ears/nose/Injured nose Feces/urine/Urine stain Eyes/Left eye red discharge	98" 140"-147, 364 57"-84, 105-119, 133-140, 218, 231-245

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6833F531	2 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	350-495, 539-546, 560-595 42"-98, 112-161, 189-693 686"-693 602"-651 532"-623
6833F532	2 Total body/Emaciated None/Dead	455" 467"
6833F533	2 Hair/skin/Jaundiced (yellow tinge to skin)	587"
6833F534	2 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	57"-78, 225 105"-112, 609 637" 602"-637
6833F535	2 Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Genital area Total body/Dehydrated	602"-728 532" 539" 14"
6833F536	2 Hair/skin/Skin growth (small)	623"
6833F537	2 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	630" 623"
6833F538	2 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	693" 679"-686 574"-693 539"-693
6833F539	2 Eyes/Left eye red discharge Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral Total body/Emaciated	665"-672 550"-672 644"-672 539"-546 672"
6833F540	2 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin)	364", 434-441 126"-196, 218 119"-147, 231-273, 308-315, 329 441"
6833F541	2 Normal throughout interval	

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6833F542	2 Eyes/Right eye red discharge Hair/skin/Skin growth (small) Toes/Injured toes	658"-728 550"-602, 616-728 112"
6833F543	2 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body dorsal Tissue mass/Body ventral	651" 550"-651 616"-651 644"-651
6833F544	2 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	665" 609"-665
6833F545	2 Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin) None/Dead	189"-203, 231-322 539" 546"-567
6833F546	2 Hair/skin/Alopecia Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Total body/Emaciated None/Dead	630"-707 707" 616"-707 707" 714"
6833F547	2 Feces/urine/Urine stain Eyes/Right eye red discharge	721"-728 218", 231-238, 308-329, 364, 378-385, 434-637 658-728
6833F548	2 Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Skin growth (small) Tissue mass/Body ventral	238"-322, 343-357, 413 168"-175 574"-609, 623-630 644"-686
6833F549	2 Eyes/Left eye red discharge	84"-91, 105-112, 126-133, 154-175, 189-218 273, 308-378, 413-467, 509-519, 532-539 567-637 392"-399 637" 602"-637
6833F550	2 Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Skin growth (small)	231"-357, 441-467, 502-525, 539 98", 196-203 623"-728
6835G601	3 Feces/urine/Urine stain Eyes/Corneal opacity left eye	231"-357, 434-467 665"-728

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6835G601	3 Hair/skin/Skin growth (small)	644"-658
6835G602	3 Appendages/injured/Right-rear-foot-injured Feces/urine/Constipation Eyes/Right eye red discharge Hair/skin/Skin growth (small) Tissue mass/Body ventral	480" 434"-448 357", 413-420, 441-448, 480-488, 509-546 567-574, 595, 658-665 644"-672, 700-721 616"
6835G603	3 Hair/skin/Skin growth (small)	616", 637-721
6835G604	3 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	651" 574"-595, 623-651
6835G605	3 Eyes/Left eye red discharge Hair/skin/Skin growth (small)	728" 580"-728
6835G606	3 Appendages/injured/Right-rear-foot-injured Feces/urine/Diarrhea Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	385"-427 488" 580"-587 574"-587 574"-587
6835G607	3 Appendages/injured/Right-rear-foot-injured Eyes/Right eye red discharge Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Toes/Injured toes	427" 140", 252 574"-728 700"-728 210"-218, 329-343
6835G608	3 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body ventral Toes/Injured toes	686"-693 679" 580"-693 539"-574 210"
6835G609	3 Eyes/Right eye red discharge Hair/skin/Skin growth (small) Tissue mass/Tail	495"-714, 728 602"-728 455"-480
6835G610	3 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Skin growth (small) Tissue mass/Body ventral	336", 357-519, 532-714 651"-700 602"-616, 644-714 406"-434, 474-488

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6835G611	3 None/Dead	441"
6835G612	3 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Sore (superficial wound/lesion)	495"-630 623"-630 546"-609
6835G613	3 Eyes/Right eye red discharge Hair/skin/Skin growth (small) Toes/Injured toes	532" 546"-700, 721-728 218"-238
6835G614	3 Hair/skin/Skin growth (small)	546"-651, 665-728
6835G615	3 Eyes/Left eye red discharge Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body dorsal	480", 519, 546-644, 665-693, 728 602"-728 532"-728 488"-728
6835G616	3 Appendages/injured/Right-rear-foot-injured Appendages/injured/Tail injured Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Sore (superficial wound/lesion)	98"-105 474"-480 679"-693 519"-665
6835G617	3 Appendages/injured/Tail injured Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral Tissue mass/Tail	36"-161, 225-480, 550-637 580"-728 519"-595 546"-574 441"-467
6835G618	3 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) None/Dead	623" 560"-623 630"
6835G619	3 Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin)	133", 154-161, 182-210, 231-467, 480-488 532-630 630"
6835G620	3 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) None/Dead	616"-623 546"-623 630"
6835G621	3 Hair/skin/Skin growth (small)	602"-728
6835G622	3 Eyes/Left eye red discharge	112"-126, 140, 154-161, 218, 231-259, 294-301 350-364, 378-385, 420, 441-448, 474-480

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6835G622	3 Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	539-630, 644-728 728" 574"-728
6835G623	3 Eyes/Right eye red discharge Tissue mass/Body dorsal	49"-78, 112 502"-532
6835G624	3 Appendages/injured/Right-front-foot-injured Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	119" 364", 539 665" 602"-630
6835G625	3 Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Pallor (pale/grey tinge to skin)	329"-350, 385, 434 231", 259, 273, 308-315, 595-609, 637-644 644"
6835G626	3 Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body ventral	672" 574"-672 539"-567
6835G627	3 Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) None/Dead	350"-364 672"-679 644"-679 686"-714
6835G628	3 Feces/urine/Urine stain Hair/skin/Skin growth (small)	560" 574"-580, 700-728
6835G629	3 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Abscess(puss filled mass/wound) Hair/skin/Skin growth (small)	637", 651 644" 420" 567"-651
6835G630	3 Eyes/Left eye red discharge Hair/skin/Skin growth (small) Toes/Injured toes	98"-119, 140-147, 385, 399, 420, 480 644"-651 336"-343
6835G631	3 Appendages/injured/Right-front-foot-injured Feces/urine/Urine stain Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Tissue mass/Body ventral Tissue mass/Right-front-leg/foot Toes/Injured toes	672"-693 133"-161, 266-287, 308-364, 392-474, 488-623 210", 455-474, 488-502, 519-546, 651-658 686"-693 587"-693 392" 385"-406

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6835G632	3 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	686" 679" 644"-686 539"-587
6835G633	3 Hair/skin/Skin growth (small) Tissue mass/Body ventral	546"-623, 637-693 658"-693
6835G634	3 Appendages/injured/Left-rear-foot-injured Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral	550"-580 609"-728 539"-595 672"-693
6835G635	3 Eyes/Bulging left eye Eyes/Corneal opacity left eye Eyes/Missing left eye Hair/skin/Skin growth (small) Tissue mass/Face None/Dead	609"-616 609"-616 623" 616" 623" 630"
6835G636	3 Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Sore (superficial wound/lesion)	580"-616 133", 154-210, 231-364, 385-595 616" 595"-616
6835G637	3 Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Respiration/Wheezing Total body/Emaciated	225", 280-287, 308-644 644" 574"-644 623"-644 644"
6835G638	3 Hair/skin/Skin growth (small)	539"-728
6835G639	3 Hair/skin/Skin growth (small) Tissue mass/Body ventral	550"-658, 686-728 539"-546
6835G640	3 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Tissue mass/Body ventral Tissue mass/Right-front-leg/foot	574" 567" 392", 539-574 392"
6835G641	3 Appendages/injured/Tail injured Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin)	225"-280, 294-480 658" 658"

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6835G641	3 Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	644"-658 519"-616
6835G642	3 Appendages/injured/Left-rear-foot-injured Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	140"-161 665" 658" 595"-665
6835G643	3 Eyes/Right eye red discharge Tissue mass/Body dorsal None/Dead	161"-175, 329-336, 371, 413, 441-448, 474-495 525-574, 602 519"-602 609"
6835G644	3 Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) None/Dead	189"-196, 385, 399, 420-434 515" 519"-532
6835G645	3 Appendages/injured/Tail injured Appendages/missing/Tail missing (tip/portion) Eyes/Left eye red discharge Eyes/Right eye red discharge Eyes/Corneal opacity right eye Hair/skin/Skin growth (small) Movements/activity/Limb paralysis	343"-392 399"-728 273"-280, 308-336 371" 378"-728 574"-728 728"
6835G646	3 Appendages/injured/Right-rear-foot-injured Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	602"-616 637" 574"-637
6835G647	3 Hair/skin/Skin growth (small)	560"-616, 644-728
6835G648	3 Eyes/Corneal opacity left eye Hair/skin/Skin growth (small)	595"-728 686"-728
6835G649	3 Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral	574"-616, 665-728 539" 707"-728
6835G650	3 Appendages/injured/Right-front-foot-injured Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Movements/activity/Hypoactivity Total body/Emaciated	609"-623 602"-623 525"-567 616"-623 616"-623

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6837H701	4 Appendages/injured/Tail ring lesions Feces/urine/Urine stain Eyes/Right eye red discharge Eyes/Micro-opthalmia right eye Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	406"-467 308"-371, 385-574, 587-623 378", 623 371" 686"-693 672"-679 623"-693
6837H702	4 Appendages/injured/Tail injured Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body dorsal Tissue mass/Body ventral	392"-448, 707-728 595"-728 532"-616 467" 474"
6837H703	4 Appendages/injured/Left-front-foot-injured Feces/urine/Urine stain Swelling/Swollen abdomen	651"-658 480" 560"-595, 658
6837H704	4 Appendages/injured/Tail ring lesions Feces/urine/Urine stain Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral	406"-467 329"-350, 385, 406-480, 495-567 574"-602, 623-728 560"-567 686"-728
6837H705	4 Hair/skin/Skin growth (small)	550"-728
6837H706	4 Appendages/injured/Right-rear-foot-injured Feces/urine/Urine stain Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	161" 112", 133, 231-287, 308-480, 495-602 49"-78 714"-728 595"-602, 616, 630-728
6837H707	4 Appendages/injured/Left-front-foot-injured Appendages/injured/Left-rear-foot-injured Appendages/injured/Tail injured Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body ventral Toes/Injured toes	161" 616" 364"-474 133"-161 119", 140, 406-420, 495 644"-651 550"-587 595"-651 336"-343
6837H708	4 Appendages/injured/Left-rear-foot-injured Appendages/injured/Tail ring lesions	161", 539-567 406"

Note: ! = Pretest phase; " = Dosing phase

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## Individual Clinical Observations Table

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Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6837H708	4 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	721" 728" 602"-616
6837H709	4 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Sore (superficial wound/lesion)	651" 644"-651
6837H710	4 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Sore (superficial wound/lesion) Respiration/Wheezing Toes/Injured toes Total body/Emaciated	672" 679" 602"-686 623"-686 420" 686"
6837H711	4 Appendages/injured/Left-rear-foot-injured Appendages/injured/Tail ring lesions Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes Total body/Emaciated None/Dead	392"-399 406"-474 665"-700 672"-700 560"-700 420" 700" 707"
6837H712	4 Appendages/injured/Left-front-foot-injured Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) None/Dead	364" 609" 546"-609 616"
6837H713	4 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral	707"-714 686"-700 546"-550, 587-714 519" 474"-515
6837H714	4 Tissue mass/Genital area	519"-728
6837H715	4 Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Skin growth (small) Total body/Emaciated	392"-467 231" 154"-161, 182-218 595" 623"
6837H716	4 Appendages/injured/Tail injured Eyes/Left eye red discharge	273"-413, 427-467 168"

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6837H716	4 Tissue mass/Face Tissue mass/Tail None/Dead	441"-467 420" 474"
6837H717	4 Hair/skin/Skin growth (small)	595", 609-721
6837H718	4 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Body ventral Tissue mass/Genital area	49"-78, 218, 259-315, 371, 420-434, 480 495-707 448", 488 546"-574, 595-721 595"-616 651"-721 519"-539
6837H719	4 Hair/skin/Jaundiced (yellow tinge to skin) None/Dead	515" 519"-532
6837H720	4 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Genital area	630" 546"-630 539"
6837H721	4 Appendages/injured/Tail ring lesions Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Skin growth (small) None/Dead	406"-467 133", 182-210, 231-580 182"-196, 308-315, 580-595, 623-686 245", 336-350, 378, 488, 665-686 616", 644-686 693"-714
6837H722	4 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	728" 721" 546"-728
6837H723	4 Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) None/Dead	49"-91, 140-161, 182-580 580" 567"-574 587"
6837H724	4 Hair/skin/Skin growth (small)	587"-728
6837H725	4 Eyes/Corneal opacity right eye Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	550"-728 721"-728 707"-714 546"-728

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6837H726	4 Hair/skin/Skin growth (small) Toes/Injured toes	609"-616, 665-686, 721-728 112"-119, 210
6837H727	4 Appendages/injured/Left-rear-foot-injured Appendages/injured/Tail ring lesions Feces/urine/Urine stain Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Genital area	587" 406"-480 231"-371, 392-480 210", 225-651 651" 539"-616 580"-587
6837H728	4 Appendages/injured/Tail ring lesions Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	406"-441 84"-98, 112, 245-280, 308-441, 455-480 509-728 57"-78 693" 550"-721
6837H729	4 Eyes/Right eye red discharge Hair/skin/Skin growth (small)	509"-728 560"-728
6837H730	4 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	700" 560"-700
6837H731	4 Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Total body/Emaciated	140"-147 336"-371, 385-420, 441-467 474"-651 539"-567, 580-651 651" 644" 651"
6837H732	4 Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Genital area Tissue mass/Tail None/Dead	546"-580 495"-580 539" 455"-474 587"
6837H733	4 Appendages/injured/Left-front-foot-injured Appendages/injured/Right-front-foot-injured Appendages/injured/Left-rear-foot-injured Appendages/injured/Right-rear-foot-injured Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	480" 480" 480" 480" 595" 580"-587

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Animal Group	Observation	Days observed
6837H733	4 Toes/Injured toes	112"-119
6837H734	4 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Tissue mass/Genital area	49"-63 700" 679" 546"-700 616" 406"-448
6837H735	4 Hair/skin/Skin growth (small) Tissue mass/Body dorsal	550"-728 420"
6837H736	4 Hair/skin/Skin growth (small) Tissue mass/Genital area Total body/Dehydrated	546"-728 539" 7"
6837H737	4 Appendages/injured/Right-rear-foot-injured Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	616" 105"-112, 140-147 630"-651 616" 574"-651 525"-616
6837H738	4 Appendages/injured/Tail ring lesions Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Total body/Dehydrated	406"-467 700" 665"-672, 693 7"
6837H739	4 Hair/skin/Skin growth (small)	550"-616, 644-728
6837H740	4 Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Tissue mass/Body dorsal Tissue mass/Body ventral	392"-427 231"-609 161", 357-364, 488-637 637" 532"-637 515"-519
6837H741	4 Eyes/Right eye red discharge Hair/skin/Skin growth (small)	448"-455, 539-567, 623-651, 686-728 721"
6837H742	4 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	49"-57 595" 580"-587 546"-595

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Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6837H743	4 Appendages/injured/Tail injured Appendages/missing/Tail missing (tip/portion) Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	488"-502 532"-714 707"-714 560"-714
6837H744	4 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin)	133", 308-315, 357, 385-392, 406-467 49"-78, 189-210, 225-245, 259-467 467"
6837H745	4 Appendages/injured/Tail ring lesions Feces/urine/Bloody feces Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion) Total body/Emaciated	406"-474 539" 602" 119"-133, 154-595, 609-665 630", 658-665 550"-665 519"-616 665"
6837H746	4 Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	364"-371, 385-420, 448, 474, 488-525, 550 567, 595-609 637"-644 602"-609
6837H747	4 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Toes/Injured toes	658" 665" 560"-728 112"
6837H748	4 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small) Tissue mass/Body dorsal Tissue mass/Genital area None/Dead	308"-315, 371, 392-399, 434, 502-515 218", 392-399 580" 560"-580 420"-434 539" 587"
6837H749	4 Appendages/injured/Tail injured Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	455"-467 273"-728 42"-63, 78-728 672"-728 602"-728
6837H750	4 Appendages/injured/Tail ring lesions Hair/skin/Jaundiced (yellow tinge to skin)	406"-467 679"-686

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Animal Group	Observation	Days observed
6837H750	4 Hair/skin/Skin growth (small) Movements/activity/Hypoactivity Toes/Injured toes Total body/Emaciated	546"-686 686" 105"-112, 308-322 686"

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Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

J-2 Females

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Animal Group	Observation	Days observed
6832E451	1 Feces/urine/Urine stain Eyes/Left eye red discharge	218"-364, 442-448, 502, 518-525, 573 63"-448, 467-728
6832E452	1 Eyes/Left eye red discharge Eyes/Micro-ophthalmia left eye Tissue mass/Body ventral	700"-707 182"-211 532"-543
6832E453	1 Appendages/missing/Tail missing (tip/portion) Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge Eyes/Left eye red discharge Eyes/Corneal opacity left eye Hair/skin/Pallor (pale/grey tinge to skin)	322"-420 105"-329, 616 707" 378", 434-448, 473, 518, 532-539 539"-707 686", 707
6832E454	1 Appendages/injured/Tail injured	119"-154, 252-427, 467-609
6832E455	1 Feces/urine/Red Vaginal Discharge	679"
6832E456	1 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	266"-315 35"-56, 84-112, 133-154, 336, 364, 378 400-420, 442, 502-512 175"-182, 218-280, 294, 392-413, 427-448 467-488, 525-532, 543, 560-567, 580-616 644-672, 693-700
6832E457	1 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin)	29"-42, 218-224, 238-343, 357-364, 378-420 473-532, 560, 580-588 42" 588"
6832E458	1 Eyes/Left eye red discharge Eyes/Right eye red discharge Toes/Injured toes	378"-400, 413-448, 488-512, 693 400", 679-686 147"-154
6832E459	1 Appendages/missing/Tail missing (tip/portion) Eyes/Right eye red discharge Tissue mass/Body ventral	595"-623 336", 378-392, 467, 488, 508-518, 560-567 609"-623
6832E460	1 Tissue mass/Genital area	679"-693
6832E461	1 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Corneal opacity left eye	147"-154, 182-448, 467-543 42"-56, 77-98, 133-140, 161-203, 218-357 371-448, 467-573, 595-707, 721-728 364", 413-420

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Animal Group	Observation	Days observed
6832E461	1 Tissue mass/Body ventral	707"
6832E462	1 Feces/urine/Urine stain	133"-161
6832E463	1 Eyes/Left eye red discharge	42", 133-154, 218-266, 294, 364-448, 543
6832E464	1 Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge	126"-133, 147-357, 406-434 392"
6832E465	1 Appendages/injured/Left-rear-foot-injured Appendages/injured/Right-rear-foot-injured Appendages/injured/Right-front-leg-injured Ears/nose/Red nasal discharge Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Sore (superficial wound/lesion) Total body/Dehydrated	231"-245 231"-245 588" 231" 133", 147-245, 336-357, 588 364"-420, 434 580"-588 588"
6832E466	1 Appendages/injured/Left-front-foot-injured Hair/skin/Jaundiced (yellow tinge to skin) None/Dead	406"-420 679" 686"
6832E467	1 Eyes/Left eye red discharge	196"-211
6832E468	1 Appendages/injured/Tail injured Feces/urine/Urine stain Movements/activity/Limb paralysis	371"-385 364" 679"
6832E469	1 Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin) Total body/Emaciated	133"-161, 322-364, 392-400 630" 630"
6832E470	1 Feces/urine/Urine stain Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin)	91", 119, 147-154 350"-357 539"
6832E471	1 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	84"-294, 308-448, 467-672 672" 665"
6832E472	1 Appendages/injured/Right-rear-foot-injured Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Left eye red discharge	91" 371"-385 364", 413-420, 448 105", 287-357, 378-448, 467-588, 616-623

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6832E472	1 Eyes/Left eye red discharge Eyes/Right eye red discharge	658 266"-357, 378-448, 467-481, 532-543, 573-623 658
6832E473	1 Hair/skin/Pallor (pale/grey tinge to skin) Toes/Injured toes Total body/Emaciated	686"-707 182" 686"-728
6832E474	1 Hair/skin/Pallor (pale/grey tinge to skin) Appendages/injured/Left-rear-foot-injured Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Toes/Injured toes	651" 91" 488"-630 630" 623" 105"-112
6832E475	1 Appendages/injured/Right-front-foot-injured Eyes/Left eye red discharge	91" 211"-364, 385-448, 473-714
6832E476	1 Appendages/injured/Left-rear-foot-injured Appendages/injured/Right-rear-foot-injured Feces/urine/Urine stain	91" 91" 147"-154, 189-203, 252-301, 350-364, 406-473 532-543, 609, 714-721
6832E477	1 Eyes/Right eye red discharge Eyes/Corneal opacity right eye Hair/skin/Jaundiced (yellow tinge to skin)	364" 460"-721 721"
6832E478	1 Appendages/injured/Tail injured Eyes/Left eye red discharge Toes/Injured toes None/Dead	467"-518 42" 329" 588"
6832E479	1 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Corneal opacity left eye	91"-112, 126-448, 473-616 266"-448, 467-665, 728 672"-700
6832E480	1 Feces/urine/Urine stain Eyes(continued)/Corneal defect right eye	133", 231-245, 357-364, 442-448 182"-211
6832E481	1 Eyes/Left eye red discharge Eyes/Right eye red discharge Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge Eyes/Left eye red discharge	287"-294, 322-448, 467-508, 539-543, 602-630 161", 211-294, 322-448, 467-665 126"-133, 231-308 315" 42"-71, 98-112, 133, 161, 211-231, 252-315

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Animal Group	Observation	Days observed
6832E481	1 None/Dead	322"-329
6832E482	1 Feces/urine/Urine stain Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	231"-350, 371-378, 406-448, 488 392"-400, 413-434, 488-502 644" 637"
6832E483	1 Appendages/injured/Right-rear-foot-injured Eyes/Left eye red discharge Eyes/Right eye red discharge	231"-245 112"-126, 182-203, 218, 231, 609 112"-161, 182-203, 218-224, 336-413, 434-448 518-595, 616-623
6832E484	1 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	658" 644"-651
6832E485	1 Appendages/injured/Right-rear-foot-injured Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Toes/Injured toes None/Dead	91" 218"-273, 287-294, 308-448, 467-481 481" 473"-481 488"
6832E486	1 Appendages/injured/Left-rear-foot-injured Appendages/injured/Right-rear-foot-injured Feces/urine/Urine stain Eyes/Right eye red discharge	460"-481 560" 133"-203, 218-364, 392-481 343"-364, 378-488, 512-602, 630, 658-665 714
6832E487	1 Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain Hair/skin/Pallor (pale/grey tinge to skin)	460" 133"-154, 182-203, 252-357, 448-467 580"-588
6832E488	1 Feces/urine/Urine stain Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin)	336"-357, 467 672"-679 679"
6832E489	1 Appendages/injured/Right-rear-foot-injured Eyes/Right eye red discharge	460"-481 336"-658, 672-728
6832E490	1 Feces/urine/Urine stain Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin)	98"-203, 218-294, 336-392, 420-448 693", 728 728"
6832E491	1 Appendages/injured/Tail injured None/Dead	371"-378 679"

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Animal Group	Observation	Days observed
6832E492	1 Feces/urine/Urine stain Eyes/Right eye red discharge None/Dead	119"-133, 168-175 495"-512 518"
6832E493	1 Hair/skin/Pallor (pale/grey tinge to skin) Swelling/Swollen abdomen	728" 543"-588
6832E494	1 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	231"-245 616"-630 71", 84, 105-119, 133-154, 218-224, 252-357 371-488, 512-567, 588-595, 609-630 224"
6832E495	1 Eyes/Micro-ophthalmia right eye Hair/skin/Ulcer (open sore, skin broken) Tissue mass/Body ventral	539"-560 567"-630
6832E496	1 Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Right eye red discharge	147"-154 329"-357, 442-467, 539-553 525"-609, 630-728
6832E497	1 Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Total body/Emaciated	539" 630" 630"
6832E498	1 Appendages/injured/Left-front-foot-injured Appendages/injured/Tail injured Eyes/Left eye red discharge Eyes/Right eye red discharge	543"-560 371"-385 448", 679-686, 700-707, 728 147"-154, 343-448, 481
6832E499	1 Appendages/injured/Tail injured Toes/Injured toes	29"-71 29"-71
6832E500	1 Hair/skin/Pallor (pale/grey tinge to skin) Tissue mass/Body ventral	560" 553"-560
6832E501	1 Appendages/injured/Right-rear-foot-injured Feces/urine/Urine stain Swelling/Swollen abdomen	91" 105"-154, 168-203, 218-392, 442-448 560"-588
6834F551	2 Appendages/injured/Right-rear-foot-injured Ears/nose/Injured nose Feces/urine/Urine stain	580"-609 385" 119"-203, 224-357, 406-420, 442-448, 525-532 543-630, 644-714 71", 91-119, 336-357, 427-448, 473-630 728"

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Animal Group	Observation	Days observed
6834F551	2 Tissue mass/Body ventral	693"-714
6834F552	2 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) None/Dead	573" 406"-448, 467-532, 573 573" 580"
6834F553	2 Appendages/injured/Right-front-foot-injured Feces/urine/Urine stain Eyes/Left eye red discharge Toes/Injured toes	567"-602 133"-140, 245-357, 442-448 560"-595 182"
6834F554	2 Bars/nose/Red nasal discharge Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Toes/Injured toes	182" 105"-161, 224-357, 385, 406-427, 442-448 442"-448 400" 182"
6834F555	2 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Eyes/Corneal opacity right eye Swelling/Swollen abdomen	119", 133-161, 308, 413-427, 448 35"-56 42"-98, 147-161, 231-245, 336-343, 385-420 658"-728 567"-588
6834F556	2 Appendages/injured/Right-rear-foot-injured Feces/urine/Red Vaginal Discharge Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Toes/Injured toes	406"-420 651"-672 434"-448, 467-495, 588-616, 630, 672 350"-357, 392-420, 442-448, 532-539, 672 658"-672 182"-203
6834F557	2 Feces/urine/Urine stain Eyes/Left eye red discharge Swelling/Swollen abdomen Toes/Injured toes	91", 126, 322-357 371"-413, 473-481, 679-707 567"-580 105"-112
6834F558	2 Appendages/injured/Left-front-foot-injured Appendages/injured/Right-front-foot-injured Feces/urine/Urine stain Eyes/Left eye red discharge	406" 406"-427 126"-400, 413-448, 473-532 385"
6834F559	2 Appendages/injured/Right-rear-foot-injured Appendages/missing/Tail missing (most/entire) Feces/urine/Urine stain	406"-448 315"-448, 467-728 91", 119-357, 406-420, 442-448, 658-665

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Animal Group	Observation	Days observed
6834F559	2 Eyes/Left eye red discharge	350"-357, 378-448, 532-543, 616, 637-651
6834F560	2 Appendages/missing/Tail missing (tip/portion) Feces/urine/Urine stain	336"-442 119"-154, 168-364, 378-448, 467-543, 567-623 637-651, 700
6834F561	2 Eyes/Right eye red discharge	161", 336-350, 364-400, 413-442, 467-488 512-560
6834F562	2 Eyes/Left eye red discharge	126"-203, 218-400, 460-473, 518-543, 588-595 616, 644-651
6834F563	2 Eyes/Right eye red discharge	42"-50, 84-105, 218-315, 392-400, 413-467 707-728
6834F564	2 Feces/urine/Diarrhea Feces/urine/Excessive urination Feces/urine/Red urine Feces/urine/Urine stain Eyes/Right eye red discharge	488" 488" 473" 105"-154, 182-329, 420 105"-154, 175-238, 329, 371, 385-400, 413-448 473-488 488"
6834F565	2 Hair/skin/Pallor (pale/grey tinge to skin)	
6834F566	2 Eyes/Left eye red discharge Eyes/Right eye red discharge Swelling/Swollen abdomen Tissue mass/Body dorsal	460", 512, 532-543 322"-539, 553-728 573"-588 644"-728
6834F567	2 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Swelling/Swollen abdomen	322"-357, 413-420, 488-512 385"-448, 481, 518-616 460"-473, 488-512 567"-588
6834F568	2 Swelling/Swollen abdomen Tissue mass/Neck Tissue mass/Body ventral	539"-560 623"-637 567"-637
6834F569	2 Feces/urine/Red Vaginal Discharge None/Dead	508" 518"-525
6834F570	2 Feces/urine/Urine stain Tissue mass/Body ventral Toes/Injured toes	161"-357, 420-427, 442-448, 616-637 580"-707 105"-119
6834F571	2 Feces/urine/Urine stain Eyes/Left eye red discharge	182"-203, 273-588 154", 231, 245-406, 427-488, 502-508, 518-543

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6834F568	2 Eyes/Right eye red discharge	196"-203, 218-231, 364-371, 400-420, 434-448
	Hair/skin/Jaundiced (yellow tinge to skin)	488, 502-512 588"
6834F569	2 Eyes/Left eye red discharge	460"-473, 539-543, 721-728
	Swelling/Swollen abdomen	560"-588, 686-728
6834F570	2 Feces/urine/Urine stain	294"-357, 406-448, 481-525, 560-623
	Toes/Injured toes	301"
6834F571	2 Feces/urine/Urine stain	147"-154, 168-203, 231-287, 301-357, 371-448
	Feces/urine/Red Vaginal Discharge	473-567, 644-651, 665-686, 707-721
	Eyes/Left eye red discharge	294"
	Eyes/Right eye red discharge	196"-203, 231, 245, 273-448, 473-637, 651-672
	Hair/skin/Jaundiced (yellow tinge to skin)	686 196"-203, 322-400, 420-448, 467-637, 651-672
6834F572	2 Eyes/Corneal opacity right eye	721"
	Eyes/Micro-ophthalmia right eye	119"-448, 467-686
	Hair/skin/Jaundiced (yellow tinge to skin)	371"-448
	Hair/skin/Pallor (pale/grey tinge to skin)	686"
	Swelling/Swollen abdomen	679"
6834F573	2 Feces/urine/Urine stain	567"-588, 665-672
	Eyes/Right eye red discharge	273"-301
		77"-154, 196-315, 329-357, 371-448, 473-481
		495-602, 623, 658-686
6834F574	2 Feces/urine/Urine stain	161"-357, 406-448, 502-512, 539-580, 721
6834F575	2 Swelling/Swollen abdomen	539"-588
6834F576	2 Appendages/injured/Tail injured	336"-448
	Feces/urine/Urine stain	133", 161-357
	Hair/skin/Pallor (pale/grey tinge to skin)	679"
	Hair/skin/Sore (superficial wound/lesion)	658"-679
	Swelling/Swollen abdomen	567"-588
	Tissue mass/Body dorsal	539"-651, 672-679
	Toes/Injured toes	105"-112
	None/Dead	686"
6834F577	2 Appendages/injured/Tail injured	371"-385
	Appendages/missing/Tail missing (tip/portion)	392"-448, 467-707

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Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6834F577	2 Feces/urine/Diarrhea Feces/urine/Urine stain Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	707" 105"-112, 126-203, 294-315, 336-357 686"-707 495"-609, 623-651
6834F578	2 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	294"-357, 400-448, 467-532, 560-588 406", 448, 481-495, 518, 532, 580-588 91"-119, 133, 147-154, 238-266, 406, 420-427 488-495, 616-623, 637-658
6834F579	2 Eyes/Left eye red discharge	182"-203, 231, 378, 420-427, 467-473, 488-532 630
6834F580	2 Hair/skin/Sore (superficial wound/lesion) Swelling/Swollen abdomen	679" 539"-543, 714-728
6834F581	2 Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	224"-245, 420, 442-448, 721-728 105"-112, 161, 182-273, 294, 357, 378-392 728" 721"
6834F582	2 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	442"-448 182", 442-448 273", 294-301, 336-357, 371-427, 467-495 525, 539, 580-602, 616
6834F583	2 Eyes/Left eye red discharge	161"
6834F584	2 Eyes/Left eye red discharge Eyes/Right eye red discharge	686", 700-707 385", 602-637, 658-721
6834F585	2 Eyes/Left eye red discharge Eyes/Right eye red discharge Eyes/Corneal opacity left eye	84"-98, 119-133, 154-273, 378-448, 467-488 512-543 442" 218"-448, 467-728
6834F586	2 Normal throughout interval	
6834F587	2 Feces/urine/Urine stain Swelling/Swollen abdomen	91"-112, 133, 168-182, 336-357, 400-448 488-580 560"
6834F588	2 Eyes/Left eye red discharge Eyes/Right eye red discharge	84", 133, 218-245, 343-385, 400 442"

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6834F588	2 Hair/skin/Sore (superficial wound/lesion)	721"-728
6834F589	2 Feces/urine/Red Vaginal Discharge Hair/skin/Pallor (pale/grey tinge to skin) Swelling/Swollen abdomen	658", 679 679" 588"
6834F590	2 Feces/urine/Urine stain Feces/urine/Prolapsed uterus	119"-182, 224-315 350"
6834F591	2 Appendages/injured/Left-front-foot-injured Appendages/injured/Right-front-foot-injured Feces/urine/Urine stain Eyes/Right eye red discharge	91" 91" 119", 133-357, 442-448 364", 392-448, 467-488, 502-543, 602, 630 679 112"
6834F592	2 Toes/Injured toes Feces/urine/Urine stain	133"-420, 434-448, 495-553
6834F593	2 Feces/urine/Urine stain Eyes/Left eye red discharge	126", 161-308 126"-140, 218, 231-400, 413-448, 467-488 512, 539-553, 609-637, 658, 714 728"
6834F594	2 None/Dead Eyes/Left eye red discharge Eyes/Right eye red discharge Swelling/Swollen abdomen Tissue mass/Genital area	231", 343, 364, 385-448, 467-588 231"-448, 467-495, 512-580 539"-588 567"-588
6834F595	2 Appendages/missing/Tail missing (tip/portion) Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge None/Dead	322"-448 301"-357, 427-448 294", 392 488"
6834F596	2 Eyes/Left eye red discharge Eyes/Right eye red discharge	105"-119, 245-448, 473-488, 543-553 218"-364, 400-448, 467-728
6834F597	2 Eyes/Left eye red discharge Eyes/Right eye red discharge Swelling/Swollen abdomen	161" 400", 658-665, 679-693, 728 543"
6834F598	2 Appendages/injured/Right-rear-foot-injured Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	91" 420" 512"-525, 553-560 336"-378, 420-448, 488-495, 525, 553, 595

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6834F598	2 Eyes/Right eye red discharge	630-637, 658-686, 707-728
6834F599	2 Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin) Swelling/Swollen abdomen	126"-133, 147-154, 168-175, 224-329 133", 161, 364-378, 406-427, 532-560 560" 553"-560 543"-560
6834F600	2 Normal throughout interval	
6836G651	3 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	442" 434"-442, 502-508, 525 616"
6836G652	3 Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Left eye red discharge	413" 105"-119, 133, 147-203, 224-357 532"
6836G653	3 Appendages/injured/Tail injured Eyes/Left eye red discharge Eyes/Right eye red discharge Respiration/Dyspnea (labored breathing)	413"-448 63", 84-448, 467-488 350"-448, 467-488 488"
6836G654	3 Eyes/Left eye red discharge Eyes/Right eye red discharge	329" 218"-448, 467-728
6836G655	3 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Micro-ophthalmia left eye	140", 161-203, 350-357, 406-448, 512 119"-154, 182-203, 218-406, 420-448, 467-707 728 105"
6836G656	3 Eyes/Right eye red discharge	196"-218, 385-392, 413, 427-448, 467, 532-560 616-623
6836G657	3 Appendages/injured/Right-front-foot-injured Eyes/Left eye red discharge Eyes/Right eye red discharge	467" 133"-140, 385, 488-512, 532-560, 658, 693-700 714-728 371"-448, 473-728
6836G658	3 Feces/urine/Urine stain	105", 147-154, 168-175, 189-357, 442
6836G659	3 Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Left eye red discharge	175"-231 182"-245, 329-357, 442-448 672"

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6836G659	3 Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	728" 721"
6836G660	3 Eyes/Left eye red discharge Eyes/Right eye red discharge Swelling/Swollen abdomen	532"-573, 609 133"-140, 196-203, 413-420, 467, 539-543 616-637 567"-588, 665-728
6836G661	3 Appendages/injured/Right-rear-foot-injured Eyes/Right eye red discharge Eyes/Micro-ophthalmia right eye	364"-371 460" 231"
6836G662	3 Feces/urine/Urine stain Eyes/Right eye red discharge	147"-161, 182-357, 413-420, 460, 543-560 460", 473-553, 595, 609-672, 700
6836G663	3 Eyes/Left eye red discharge	273"-413, 442-448, 488-623, 644-658, 672-679 728
6836G664	3 Eyes/Right eye red discharge Hair/skin/Sore (superficial wound/lesion) Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge Eyes/Left eye red discharge Eyes/Right eye red discharge	473"-481 525"-623 133", 147-357, 427-448, 473-560 385"-406 133", 413-420, 434-442 322"-336, 413-448, 473-543
6836G665	3 Appendages/injured/Right-front-foot-injured Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Sore (superficial wound/lesion) Toes/Injured toes None/Dead	91" 502"-512 413"-420 512" 98" 518"-525
6836G666	3 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Skin growth (small) Tissue mass/Face	329"-357, 481-525, 573-728 609" 467"-508, 532-609 343"-448
6836G667	3 Feces/urine/Urine stain Eyes/Left eye red discharge	161" 488"-512, 543, 567-580
6836G668	3 Normal throughout interval	
6836G669	3 Appendages/injured/Left-rear-foot-injured Feces/urine/Cloudy urine	406"-442 105"-112

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6836G669	3 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	133", 147-154, 609 35"-71, 133, 385-481, 525-532, 658-665 686"
6836G670	3 Eyes/Left eye red discharge Eyes/Right eye red discharge	406"-420 42"-71, 294-392, 427-467, 488, 525-588 644-665, 714-721
6836G671	3 Eyes/Left eye red discharge Eyes/Right eye red discharge None/Dead	406" 280"-287, 301-315, 385-420, 442-488, 512-518 539 553"-560
6836G672	3 Eyes/Right eye red discharge Tissue mass/Body ventral	224"-245, 273-442, 473-560, 595-602, 616-728 721"-728
6836G673	3 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Total body/Dehydrated	280" 280" 280" 280"
6836G674	3 Appendages/injured/Left-front-foot-injured Eyes/Left eye red discharge Eyes/Right eye red discharge	91" 105", 400-481, 525-543, 616-623 280"-357, 371-488, 512-553, 567-595, 616-623 651, 672-686, 707-714
6836G675	3 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Eyes/Corneal opacity left eye	413"-420, 442-460 84"-105, 119-364, 385-518, 532-602, 616-630 658 133"-140, 218-287, 308-400, 442-460, 567-580 721"-728
6836G676	3 Appendages/injured/Left-rear-foot-injured Appendages/injured/Right-rear-foot-injured Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Sore (superficial wound/lesion) Oral cavity/dental/tissue mass Oral cavity/dental/Sore	448"-460 595"-609 91"-98, 161-273, 287-357, 371-460, 488-495 512-580 448"-460 400" 231"-245, 413-427, 616-623 651" 525"-623 133"-140 147"-154
6836G677	3 Normal throughout interval	

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Animal Group	Observation	Days observed
6836G678	3 Eyes/Left eye red discharge Eyes/Right eye red discharge Tissue mass/Genital area None/Dead	105"-112, 413-420, 434, 448-481, 518-532 553-580, 616-637 105"-112, 343-532, 553-623 532"-693 700"
6836G679	3 Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Skin growth (small)	273"-357, 406-420, 488, 539-560, 573-580 630-644 651" 637"-651
6836G680	3 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	413"-442, 580-588 442" 644" 637"
6836G681	3 Normal throughout interval	
6836G682	3 Eyes/Left eye red discharge Hair/skin/Jaundiced (yellow tinge to skin)	385"-392 644"
6836G683	3 Feces/urine/Urine stain Eyes/Right eye red discharge	560" 442"
6836G684	3 Feces/urine/Urine stain Eyes/Right eye red discharge	518" 322"-357, 385-473
6836G685	3 Hair/skin/Jaundiced (yellow tinge to skin)	539"
6836G686	3 Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin)	133", 196-203, 231-728 728"
6836G687	3 Feces/urine/Urine stain Hair/skin/Jaundiced (yellow tinge to skin) Tissue mass/Body ventral	91"-98, 119, 133-203, 224-357, 400-448 488-495, 539-560 679" 672"-679
6836G688	3 Appendages/injured/Right-front-foot-injured Ears/nose/Red nasal discharge Hair/skin/Pallor (pale/grey tinge to skin)	665" 658" 658"
6836G689	3 Feces/urine/Urine stain Eyes/Right eye red discharge	133", 336-357, 413-460, 525-560, 573-580 665" 336"-343, 357, 371-728

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6836G689	3 Hair/skin/Skin growth (small) Hair/skin/Sore (superficial wound/lesion)	539"-580 512"-532, 595-728
6836G690	3 Eyes/Left eye red discharge Hair/skin/Sore (superficial wound/lesion) Toes/Injured toes	133", 154, 273-280, 413-442, 467-481, 495-512 539-693, 707-728 512" 147"-154
6836G691	3 Ears/nose/Injured nose Eyes/Left eye red discharge Respiration/Dyspnea (labored breathing)	91" 91" 91"
6836G692	3 Normal throughout interval	
6836G693	3 Eyes/Left eye red discharge Eyes/Right eye red discharge None/Dead	308"-473, 488, 512-525, 539-580, 595-637 196"-218, 616-623 658"
6836G694	3 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	350"-357, 488, 560 161", 287-315, 371-609 357", 385-460, 488-532
6836G695	3 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin)	630"-658 616"-658 630"-658
6836G696	3 Ears/nose/Injured nose Eyes/Left eye red discharge Respiration/Dyspnea (labored breathing)	91" 91" 91"
6836G697	3 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Skin growth (small) Tissue mass/Body dorsal	161", 189-728 287", 385-420, 434-442, 467-488, 512-595 665"-728 700"-728
6836G698	3 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Alopecia	105"-112, 126-154, 168-357, 413-460, 488-623 392"-420, 442, 467-508, 525-560, 573-580 602-623 385"-488, 518-588, 602-623 623" 119"
6836G699	3 Eyes/Left eye red discharge Eyes/Corneal opacity left eye	50"-56 91"-112

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6836G699	3 Oral cavity/dental/Malocclusion/overgrown teeth Oral cavity/dental/Broken teeth Total body/Skinny	112" 56" 50"-56
6836G700	3 Feces/urine/Urine stain Eyes/Left eye red discharge Hair/skin/Pallor (pale/grey tinge to skin)	400" 602" 119"
6838H751	4 Appendages/injured/Tail injured Eyes/Left eye red discharge Eyes/Right eye red discharge	448"-658 71", 105, 119, 231-238, 336-658 71", 231-539, 560-567, 588-602, 616-623 637-658
6838H752	4 Hair/skin/Pallor (pale/grey tinge to skin) Total body/Emaciated	651"-658 651"-658
6838H752	4 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Skin growth (small)	273", 287-329, 364, 400, 442-448 364", 385-392, 413-448, 495-508 679"-686 508"-512
6838H753	4 Appendages/injured/Right-rear-foot-injured Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge Eyes/Left eye red discharge Eyes/Right eye red discharge None/Dead	448"-460 714"-721 707" 252"-266, 371-495 119", 133-154, 252-266, 392-427, 460 728"
6838H754	4 Appendages/injured/Left-rear-foot-injured Appendages/injured/Tail injured Appendages/injured/Tail ring lesions Appendages/missing/Tail missing (tip/portion) Feces/urine/Urine stain Eyes/Left eye red discharge	448"-460 400"-442 442"-467 502"-728 133", 168-203, 218-364, 413-721 133", 322-357, 378-392, 406-420, 442-467 630-644
6838H755	4 Eyes/Left eye red discharge Eyes/Right eye red discharge	378"-400, 442, 539-686, 700-728 357", 371, 406-434, 448-518, 539-580, 616-630 651-665
6838H756	4 Appendages/missing/Tail missing (tip/portion) Eyes/Left eye red discharge	378"-728 231"-273, 308-357, 385-400, 420-481, 588-602
6838H757	4 Eyes/Left eye red discharge	196"-211, 252-273, 350-400, 427, 460-467 539, 560-567, 616, 644-658

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Animal Group	Observation	Days observed
6838H757	4 Eyes/Right eye red discharge	392", 406, 434-442, 467, 512-573, 616
	Hair/skin/Jaundiced (yellow tinge to skin)	644-658, 672-700
	Hair/skin/Pallor (pale/grey tinge to skin)	693"-700
	Toes/Injured toes	679"-686
	Toes/Missing toes	329"
	None/Dead	336"-427 707"
6838H758	4 Eyes/Left eye red discharge	427", 637-693
	Hair/skin/Sore (superficial wound/lesion)	707"
6838H759	4 Appendages/injured/Left-rear-foot-injured	91"
	Eyes/Left eye red discharge	707"-728
	Eyes/Right eye red discharge	133", 252-273, 400, 442-460, 543-553, 630-665
	Toes/Injured toes	686-693 329"-350
6838H760	4 Eyes/Left eye red discharge	161", 273, 467-693, 714-728
	Eyes/Right eye red discharge	273"
6838H761	4 Appendages/injured/Tail injured	658"-707
	Eyes/Left eye red discharge	442"
	Eyes/Right eye red discharge	161", 442
6838H762	4 Feces/urine/Urine stain	287"-364, 420-460, 473-508, 518-532, 580
	Eyes/Left eye red discharge	385"-543, 580, 630-637, 665-728
6838H763	4 Feces/urine/Urine stain	126"-133, 336-357
	Feces/urine/Red Vaginal Discharge	473"
	Eyes/Right eye red discharge	287"-294
6838H764	4 Feces/urine/Urine stain	322"-357, 525
	Eyes/Left eye red discharge	442"-525
	Hair/skin/Jaundiced (yellow tinge to skin)	525"
6838H765	4 Eyes/Right eye red discharge	543"-553, 602-693, 707-721
6838H766	4 Hair/skin/Jaundiced (yellow tinge to skin)	473"
6838H767	4 Feces/urine/Urine stain	672"
	Eyes/Left eye red discharge	385"
	Eyes/Right eye red discharge	543"-700
	Eyes/Corneal opacity right eye	63"-728

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Animal Group	Observation	Days observed
6838H768	4 Eyes/Right eye red discharge	442"
6838H769	4 Feces/urine/Urine stain	147"-588, 609, 651
6838H770	4 Appendages/injured/Left-rear-foot-injured Appendages/injured/Right-rear-foot-injured Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	460" 460" 71", 133-154, 385-460 658" 651"
6838H771	4 Eyes/Left eye red discharge	434"
6838H772	4 Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain	91" 126"-154, 168-175, 189-203, 224-364, 392-488 567, 707-728
6838H773	4 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Tissue mass/Body ventral	512"-672 700"-728 679"-714
6838H774	4 Appendages/injured/Tail injured Eyes/Left eye red discharge Tissue mass/Body ventral Tissue mass/Genital area	218"-224 385"-400 658"-686 693"-728
6838H775	4 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin)	273", 481-488 467"-488
6838H776	4 Appendages/injured/Right-front-foot-injured Appendages/injured/Left-rear-foot-injured Eyes/Left eye red discharge Eyes/Right eye red discharge Toes/Injured toes	133", 224, 336-357, 385-413, 442-467, 488-644 686" 686" 231"-245 161" 413" 406"-460, 473-637, 658-728 168"-175
6838H777	4 Appendages/injured/Left-front-foot-injured Eyes/Left eye red discharge Eyes/Right eye red discharge Eyes/Corneal opacity left eye Toes/Injured toes	140"-154 161", 378-473 406", 518 211"-728 112"-119
6838H778	4 Eyes/Left eye red discharge	488"-495

Note: ! = Pretest phase; " = Dosing phase

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Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group	Observation	Days observed
6838H778	4 Eyes/Right eye red discharge Hair/skin/Pallor (pale/grey tinge to skin) Hair/skin/Sore (superficial wound/lesion)	420"-442 728" 525"
6838H779	4 Feces/urine/Urine stain Eyes/Left eye red discharge	133", 147-154, 168-560, 580-588 364"-525
6838H780	4 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	658"-665 385"-488, 588-630, 665, 686 488", 553-560
6838H781	4 Eyes/Left eye red discharge	567"-580
6838H782	4 Feces/urine/Urine stain Eyes/Left eye red discharge Tissue mass/Body ventral	168"-203, 252-364, 392-473, 488, 502-560 588, 609-630 161", 543-553, 728 714"-728
6838H783	4 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Hair/skin/Pallor (pale/grey tinge to skin)	273"-473, 488-623, 637-686 336"-343, 400, 420-427, 488, 518-573, 630 651-672, 686-707 336"-343, 406, 467-473, 488, 567, 637 700" 707"
6838H784	4 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Toes/Injured toes	322"-336 442", 481 161" 105"-112
6838H785	4 Eyes/Left eye red discharge Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin)	218"-473 231", 252-336, 350-357, 371-392, 413-473 473"
6838H786	4 Feces/urine/Red urine Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge Eyes/Left eye red discharge	488"-495, 588 119", 133, 147-364, 400-481, 502-609 602" 413", 473-543, 560
6838H787	4 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	273"-350, 442, 532 442"-460 442"
6838H788	4 Feces/urine/Urine stain	357"

Note: ! = Pretest phase; " = Dosing phase

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Animal Group	Observation	Days observed
6838H788	4 Eyes/Left eye red discharge Eyes/Right eye red discharge	196"-211, 252-273, 350, 467-495, 518-658 672-728 539"-609
6838H789	4 Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	467"-488 231"-266 133", 350-357, 371-488, 532, 560, 580-609 644-679 350"-357, 413-420, 658-728
6838H790	4 Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain Eyes/Right eye red discharge	238"-266 147"-357, 371-560, 623 413"-420, 467-560, 580-602, 630-637, 658
6838H791	4 Appendages/injured/Tail injured Appendages/injured/Tail ring lesions Eyes/Right eye red discharge Toes/Injured toes	29"-119, 147-154, 218-224, 336-481 442"-460 400" 413"-427
6838H792	4 Eyes/Right eye red discharge Hair/skin/Jaundiced (yellow tinge to skin) Toes/Injured toes	385"-392 714"-728 98"
6838H793	4 Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Left eye red discharge	371"-442 442", 567 161", 385-442, 467
6838H794	4 Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge Eyes/Left eye closed Hair/skin/Alopecia	679"-686 392", 406, 420-442 84", 518, 573-616 385" 105"-112
6838H795	4 Appendages/injured/Left-rear-foot-injured Feces/urine/Urine stain Eyes/Left eye red discharge Eyes/Right eye red discharge	400" 126", 147-154, 224-329, 350-357, 442-460 693-700 161", 442 616"
6838H796	4 Appendages/injured/Tail injured Feces/urine/Urine stain Feces/urine/Red Vaginal Discharge Eyes/Right eye red discharge	481"-495 119"-126, 147-161, 224-357, 427-495, 518-637 658, 679-714 448" 140", 329, 364, 392-481, 495, 518-637

Note: ! = Pretest phase; " = Dosing phase

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Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group	Observation	Days observed
6838H796	4 Eyes/Right eye red discharge	658-728
6838H797	4 Eyes/Left eye red discharge Eyes/Right eye red discharge	273", 336-350, 406, 567-573 42"-112, 140, 273-280, 385-560, 573-602
6838H798	4 Appendages/injured/Tail injured Feces/urine/Urine stain Eyes/Right eye red discharge Eyes/Corneal opacity left eye Hair/skin/Skin growth (small) Tissue mass/Genital area	413"-460 91"-728 385"-392, 413-434, 573-630 413"-728 686"-728 721"-728
6838H799	4 Ears/nose/Injured nose	147"-154, 385-392
6838H800	4 Eyes/Left eye red discharge	686"

Note: ! = Pretest phase; " = Dosing phase

APPENDIX K

BODY AND ORGAN WEIGHTS AT NECROPSY

- K-1 Absolute Organ Weights, Male and Female, Final Sacrifice
- K-2 Percent Organ to Body Weight, Male and Female, Final Sacrifice
- K-3 Percent Organ to Brain Weight, Male and Female, Final Sacrifice
- K-4 Absolute Organ Weights, Male and Female, Euthanized Rats
- K-5 Percent Organ to Body Weight, Male and Female, Euthanized Rats
- K-6 Percent Organ to Brain Weight, Male and Female, Euthanized Rats
- K-7 Organ Weights for Animals that Died

K-1 Absolute Organ Weights, Male and Female, Final Sacrifice

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Rat/F344/N	Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic						
			Brain	Epididymis	Heart	Kidneys	Liver		
6831E407/M	1/1	403.2	0.077	M a l e 2.185	A n i m a l s 0.765	1.389	3.157	15.081	1.863
6831E413/M	1/1	379.5	0.078	2.123	0.284	1.165	2.588	14.429	1.827
6831E415/M	1/1	395.5	0.064	2.085	0.518	1.102	2.941	22.487	2.220
6831E418/M	1/1	398.8	0.075	2.168	0.628	1.268	3.057	14.154	1.863
6831E422/M	1/1	384.3	0.054	2.075	0.731	1.122	2.873	13.236	1.722
6831E435/M	1/1	355.1	0.077	2.039	0.777	1.291	3.273	16.985	1.735
6831E436/M	1/1	393.1	0.069	2.054	0.342	1.153	2.916	15.136	1.639
6831E437/M	1/1	398.3	0.075	2.130	0.978	1.223	2.718	12.255	1.735
6831E440/M	1/1	396.8	0.440	2.107	0.376	1.231	2.870	14.131	1.809
6831E442/M	1/1	383.6	0.096	2.089	0.494	1.082	3.339	30.447	2.505
6831E443/M	1/1	404.7	0.069	2.080	0.457	1.162	2.796	13.070	1.668
6831E446/M	1/1	352.3	0.059	2.038	0.472	1.234	2.681	15.988	2.446
6831E448/M	1/1	396.0	0.060	2.042	0.495	1.020	2.638	12.794	1.771
6831E449/M	1/1	418.7	0.080	2.180	0.370	1.321	2.836	14.940	2.040
Standard deviation:		390.0	0.098	2.100	0.549	1.197	2.906	16.081	1.917
Number of observ. :		18.2	0.099	0.051	0.200	0.101	0.230	4.838	0.281
		(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
6833F502/M	2/1	384.3	0.084	2.125	0.359	1.345	2.804	13.466	1.808
6833F505/M	2/1	400.1	0.060	1.999	0.391	1.227	2.953	15.398	1.922
6833F508/M	2/1	387.3	0.071	2.070	0.620	1.257	2.929	13.579	2.162
6833F511/M	2/1	411.5	0.068	2.142	0.396	1.324	2.909	14.293	2.005
6833F513/M	2/1	280.5	0.072	2.021	0.350	1.034	2.558	11.897	2.992
6833F516/M	2/1	377.9	0.073	2.049	0.425	1.083	2.595	17.607	2.553
6833F519/M	2/1	416.2	0.066	2.094	0.435	1.362	3.182	13.189	1.969
6833F521/M	2/1	335.6	0.082	2.052	0.385	1.254	2.633	19.093	3.870
6833F523/M	2/1	408.3	0.052	2.069	0.477	1.087	2.757	12.645	2.182
6833F525/M	2/1	393.6	1.742	2.097	0.369	1.199	3.369	17.942	2.495
6833F526/M	2/1	362.5	0.086	2.041	0.519	1.141	3.960	17.624	2.503
6833F535/M	2/1	409.1	0.071	2.069	0.383	1.197	3.133	13.062	2.270
6833F536/M	2/1	340.7	0.071	2.090	0.561	1.141	2.635	11.522	1.650
6833F542/M	2/1	365.4	0.067	2.028	0.478	1.151	2.682	12.958	1.813
6833F547/M	2/1	366.3	0.069	1.993	0.483	1.242	2.892	13.078	1.741
6833F550/M	2/1	368.4	0.066	2.059	0.337	1.084	4.855	18.891	1.853
Standard deviation:		375.5	0.175	2.062	0.436	1.196	3.053	14.765	2.237
Number of observ. :		35.2	0.418	0.042	0.081	0.099	0.598	2.589	0.566
		(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)

\* (+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 % (\$) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Rat/F344/N		Inhalation/whole-bdy/Chronic										
Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs				
6835G601/M	3/1	382.8	0.050	2.077	0.397	0.992	2.717	12.481	1.859			
6835G602/M	3/1	368.3	0.112	2.100	0.353	1.200	3.096	14.508	2.100			
6835G603/M	3/1	375.0	0.062	2.028	0.331	1.051	2.857	13.108	1.878			
6835G605/M	3/1	354.7	0.096	2.026	0.362	1.225	3.018	14.370	2.858			
6835G607/M	3/1	372.0	0.068	2.059	0.377	1.136	3.061	14.932	1.689			
6835G609/M	3/1	394.9	0.071	2.173	0.399	1.253	3.072	14.141	1.959			
6835G610/M	3/1	368.2	0.064	2.137	0.325	1.123	2.714	12.084	2.010			
6835G613/M	3/1	374.6	0.063	2.070	0.365	1.187	2.648	12.740	1.909			
6835G614/M	3/1	389.1	0.072	2.090	0.591	1.456	3.088	14.386	1.974			
6835G615/M	3/1	349.7	0.073	2.090	0.392	1.116	3.219	16.784	3.213			
6835G617/M	3/1	359.5	0.088	1.989	0.407	1.148	3.122	13.169	1.705			
6835G621/M	3/1	350.0	0.094	2.053	0.389	1.053	2.609	13.974	1.739			
6835G628/M	3/1	378.2	0.067	2.043	0.412	1.302	2.799	13.500	1.965			
6835G630/M	3/1	366.6	0.077	2.074	0.301	1.095	2.824	13.706	2.013			
6835G634/M	3/1	396.2	0.069	2.124	0.543	1.323	3.401	16.109	2.022			
6835G638/M	3/1	392.2	0.068	2.135	0.498	1.535	3.154	16.469	2.495			
6835G639/M	3/1	383.2	0.080	2.015	0.404	1.290	2.880	14.085	2.629			
6835G647/M	3/1	401.1	0.070	2.099	0.474	1.209	2.818	15.258	1.847			
6835G648/M	3/1	268.6	0.076	2.001	0.574	1.006	3.395	13.383	2.427			
6835G649/M	3/1	349.5	0.072	2.066	0.421	1.132	2.707	14.052	1.773			
Standard deviation:		368.7	0.075	2.072	0.416%	1.192	2.960	14.162	2.103			
Number of observ. :		28.5	0.014	0.048	0.081	0.140	0.236	1.268	0.411			
		(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)			
6837H702/M	4/1	382.2	0.073	2.102	0.428	1.160	3.075	14.279	1.976			
6837H704/M	4/1	397.1	0.073	2.076	0.541	1.206	2.818	14.026	1.704			
6837H705/M	4/1	399.2	0.067	2.167	0.453	1.223	3.699	18.642	3.669			
6837H706/M	4/1	356.7	0.070	2.117	0.571	1.217	3.199	14.762	1.936			
6837H708/M	4/1	346.6	0.064	1.966	0.312	1.054	3.024	22.278	2.364			
6837H714/M	4/1	335.0	0.067	2.032	0.452	0.974	2.967	14.172	1.667			
6837H717/M	4/1	371.8	0.076	1.974	0.398	1.177	3.435	12.522	1.905			
6837H722/M	4/1	335.5	0.070	2.074	0.392	1.006	2.950	21.799	3.291			
6837H724/M	4/1	351.4	0.070	2.132	0.383	1.271	3.993	16.022	2.710			
6837H725/M	4/1	271.3	0.091	1.988	0.443	1.040	3.077	17.512	2.725			
6837H726/M	4/1	376.6	0.081	2.055	0.351	1.129	2.942	15.164	1.859			
6837H728/M	4/1	348.4	0.060	1.978	0.301	1.068	2.578	14.001	1.664			
6837H729/M	4/1	355.9	0.071	2.078	0.342	1.151	2.620	13.647	1.922			
6837H735/M	4/1	357.6	0.076	2.061	0.527	1.103	2.833	13.693	1.774			
6837H736/M	4/1	371.5	0.076	2.024	0.605	1.244	3.245	15.902	1.946			

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6837H739/M	4/1	371.6	0.056	2.041	0.535	2.937	13.007	1.788
6837H741/M	4/1	361.3	0.079	2.000	0.380	2.744	14.641	1.908
6837H747/M	4/1	365.8	0.096	2.119	0.433	3.273	16.088	1.726
6837H749/M	4/1	328.0	0.055	2.050	0.305	2.622	11.872	1.889
Standard deviation:		357.0+	0.072	2.054*	0.429	3.054	15.475	2.128
Number of observ. :		28.4	0.010	0.058	0.092	0.365	2.832	0.570
		(19)	(19)	(19)	(19)	(19)	(19)	(19)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013M  
 Scheduled Sacrifices FS  
 Study start date: 23-May-01  
 Inhalation/whole-bdy/Chronic

Rat/F344/N Animal Group/ Terminal No/sex Subgroup Body wt. (g) Testes

Animal Group/ Terminal No/sex Subgroup	Body wt. (g)	Spleen	Male Animals
6831E407/M	1/1	403.2	1.198
6831E413/M	1/1	379.5	1.802
6831E415/M	1/1	395.5	4.540
6831E418/M	1/1	398.8	2.320
6831E422/M	1/1	384.3	2.251
6831E435/M	1/1	355.1	1.624
6831E436/M	1/1	393.1	1.667
6831E437/M	1/1	398.3	1.309
6831E440/M	1/1	396.8	1.076
6831E442/M	1/1	383.6	7.643
6831E443/M	1/1	404.7	1.661
6831E446/M	1/1	352.3	4.662
6831E448/M	1/1	396.0	2.389
6831E449/M	1/1	418.7	1.810
Mean:			
Standard deviation:			
Number of observ. :			
6833F502/M	2/1	384.3	1.854
6833F505/M	2/1	400.1	1.839
6833F508/M	2/1	387.3	1.783
6833F511/M	2/1	411.5	1.719
6833F513/M	2/1	280.5	5.401
6833F516/M	2/1	377.9	6.050
6833F519/M	2/1	416.2	1.982
6833F521/M	2/1	335.6	20.968
6833F523/M	2/1	408.3	3.037
6833F525/M	2/1	393.6	3.886
6833F526/M	2/1	362.5	4.917
6833F535/M	2/1	409.1	4.343
6833F536/M	2/1	340.7	0.956
6833F542/M	2/1	365.4	1.865
6833F547/M	2/1	366.3	1.208
6833F550/M	2/1	368.4	2.079
Mean:			
Standard deviation:			
Number of observ. :			
6833F502/M	2/1	18.2	1.831
Standard deviation:			
Number of observ. :			
Mean:			
Standard deviation:			
Number of observ. :			

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013M  
 Scheduled Sacrifices FS  
 Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6835G601/M	3/1	382.8	10.187
6835G602/M	3/1	368.3	9.180
6835G603/M	3/1	375.0	2.816
6835G605/M	3/1	354.7	3.063
6835G607/M	3/1	372.0	5.616
6835G609/M	3/1	394.9	9.009
6835G610/M	3/1	368.2	9.405
6835G613/M	3/1	374.6	7.676
6835G614/M	3/1	389.1	7.271
6835G615/M	3/1	349.7	3.631
6835G617/M	3/1	359.5	2.183
6835G621/M	3/1	350.0	7.621
6835G628/M	3/1	378.2	6.559
6835G630/M	3/1	366.6	4.122
6835G634/M	3/1	396.2	4.417
6835G638/M	3/1	392.6	6.398
6835G639/M	3/1	383.2	5.872
6835G647/M	3/1	401.1	7.126
6835G648/M	3/1	268.6	3.771
6835G649/M	3/1	349.5	3.995
		368.7	5.996
Standard deviation:		28.5	2.419
Number of observ. :		(20)	(20)
6837H702/M	4/1	382.2	9.060
6837H704/M	4/1	397.1	4.011
6837H705/M	4/1	399.2	4.497
6837H706/M	4/1	356.7	2.680
6837H708/M	4/1	346.6	8.015
6837H714/M	4/1	335.0	8.264
6837H717/M	4/1	371.8	6.365
6837H722/M	4/1	335.5	1.947
6837H724/M	4/1	351.4	4.761
6837H725/M	4/1	271.3	2.031
6837H726/M	4/1	376.6	10.830
6837H728/M	4/1	348.4	9.114
6837H729/M	4/1	355.9	6.645
6837H735/M	4/1	357.6	7.052
6837H736/M	4/1	371.5	7.363

Mean:  
 Standard deviation:  
 Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013M  
 Scheduled Sacrifices FS  
 Rat/F344/N  
 Study start date: 23-May-01  
 Inhalation/whole-bdy/Chronic

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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6837H739/M 4/1	371.6	1.405	6.749
6837H741/M 4/1	361.3	3.900	7.623
6837H747/M 4/1	365.8	1.788	6.609
6837H749/M 4/1	328.0	1.634	6.537
M e a n:			
Standard deviation:	357.0+	4.776	6.324
Number of observ. :	28.4	6.159	2.448
	(19)	(19)	(19)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013F  
 Scheduled Sacrifices FS  
 Study start date: 30-May-01  
 Printed: 21-Jul-04  
 Page: 1

Rat/F344/N	Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Brain					Kidneys					Lungs					
			Female		Male		Heart		Adrenal glands		Brain		Kidneys		Liver		Ovaries	
6832E451/F	1/1	290.9	0.069	1.874	1.031	1.932	10.320	1.452	0.092									
6832E452/F	1/1	265.5	0.076	1.896	0.910	1.915	8.751	1.276	0.130									
6832E456/F	1/1	272.8	0.069	1.821	0.929	1.821	9.353	1.367	0.087									
6832E458/F	1/1	257.4	0.054	1.858	0.873	1.732	8.619	1.206	0.110									
6832E460/F	1/1	277.6	0.066	1.883	0.933	1.840	9.696	1.354	0.094									
6832E461/F	1/1	300.6	0.076	1.955	1.135	2.027	10.562	1.328	0.097									
6832E462/F	1/1	304.3	0.070	1.915	0.853	2.087	12.338	1.907	0.104									
6832E463/F	1/1	277.1	0.072	1.952	0.933	1.901	10.556	1.873	0.093									
6832E464/F	1/1	217.4	0.061	1.833	0.938	1.809	6.630	2.025	0.070									
6832E467/F	1/1	301.9	0.068	1.894	0.903	1.898	9.325	1.428	0.115									
6832E472/F	1/1	165.8	0.075	1.746	0.881	3.437	6.561	1.250	0.087									
6832E475/F	1/1	260.0	0.059	1.948	0.813	1.794	7.974	1.322	0.113									
6832E478/F	1/1	263.4	0.056	1.915	0.807	1.885	8.604	1.292	0.101									
6832E483/F	1/1	271.8	0.063	1.849	0.820	1.725	8.851	1.251	0.121									
6832E486/F	1/1	265.4	0.058	1.858	0.852	1.865	8.641	1.325	0.098									
6832E489/F	1/1	263.9	0.068	1.944	0.858	1.850	8.490	1.214	0.094									
6832E490/F	1/1	223.6	0.052	1.898	0.925	1.811	11.856	2.951	0.071									
6832E493/F	1/1	230.8	0.064	1.946	0.991	2.005	10.077	2.948	0.035									
6832E495/F	1/1	301.6	0.083	1.980	1.061	2.082	9.832	1.501	0.549									
6832E497/F	1/1	269.1	0.063	1.811	0.909	1.740	9.759	1.458	0.093									
6832E498/F	1/1	254.1	0.063	1.988	0.874	1.782	7.261	1.227	0.106									
6832E500/F	1/1	303.6	0.063	1.900	1.044	1.993	9.295	1.413	0.105									
Standard deviation:		265.4	0.066	1.894	0.922	1.951	9.243	1.562	0.117									
Number of observ. :		33.3	0.008	0.060	0.085	0.348	1.452	0.503	0.099									
		(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)									
6834F551/F	2/1	280.6	0.049	1.874	0.810	1.973	10.661	1.421	0.099									
6834F553/F	2/1	278.5	0.069	1.940	0.890	1.982	8.888	1.346	0.104									
6834F554/F	2/1	281.2	0.060	1.853	0.880	1.918	9.170	1.439	0.106									
6834F555/F	2/1	297.4	0.071	1.894	0.914	1.943	9.952	1.431	0.148									
6834F557/F	2/1	264.6	0.056	1.905	0.966	1.940	8.148	1.307	0.136									
6834F558/F	2/1	263.2	0.066	1.833	0.923	1.944	10.176	1.225	0.107									
6834F559/F	2/1	245.3	0.069	1.865	0.911	1.805	7.877	1.243	0.107									
6834F560/F	2/1	283.1	0.060	1.937	0.894	2.025	8.558	1.336	0.096									
6834F561/F	2/1	277.0	0.066	1.814	0.913	2.000	9.070	1.342	0.115									
6834F563/F	2/1	288.7	0.074	1.864	1.043	2.109	10.619	1.259	0.133									
6834F564/F	2/1	221.5	0.059	1.783	0.781	1.945	7.715	1.193	0.117									
6834F569/F	2/1	312.4	0.081	1.912	0.974	2.028	11.000	1.315	0.116									

\* (+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 % (\$) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013F  
 Scheduled Sacrifices FS  
 Study start date: 30-May-01

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic						
		Brain	Heart	Kidneys	Liver	Lungs	Ovaries	
6834F570/F	268.6	1.924	0.783	1.834	9.343	1.281	0.122	
6834F573/F	258.5	1.819	0.850	1.795	8.141	1.244	0.069	
6834F574/F	265.2	1.817	0.847	1.869	8.390	1.299	0.111	
6834F575/F	309.2	1.913	0.878	2.059	9.295	1.350	0.107	
6834F579/F	299.6	1.912	1.013	2.202	12.317	1.680	0.112	
6834F580/F	296.3	1.893	0.899	1.964	8.956	1.214	0.112	
6834F583/F	276.2	1.917	1.003	1.878	8.571	1.453	0.142	
6834F584/F	258.5	1.885	0.841	1.159	23.096	1.549	0.184	
6834F585/F	234.6	1.891	0.964	1.788	8.638	1.851	0.097	
6834F586/F	286.9	1.858	0.821	1.849	8.973	1.326	0.103	
6834F587/F	282.6	1.921	0.966	1.951	8.796	1.319	0.118	
6834F588/F	267.6	1.701	0.980	1.767	8.660	1.360	0.126	
6834F591/F	256.1	1.907	0.897	1.922	8.576	1.357	0.109	
6834F592/F	274.7	1.869	0.900	1.867	8.069	1.367	0.108	
6834F596/F	262.2	1.862	0.830	1.889	11.183	1.271	0.434	
6834F597/F	280.2	1.886	0.843	1.842	8.743	1.359	0.133	
6834F598/F	252.7	1.856	0.809	1.908	8.509	1.233	0.088	
6834F600/F	280.6	1.946	0.788	1.854	9.964	1.603	0.132	
Mean:	273.5	1.875	0.894	1.900	9.668	1.366	0.126	
Standard deviation:	20.4	0.052	0.072	0.171	2.759	0.145	0.062	
Number of observ. :	(30)	(30)	(30)	(30)	(30)	(30)	(30)	
6836G651/F	262.8	1.900	0.892	2.080	9.121	1.315	0.080	
6836G652/F	277.7	1.919	0.827	1.936	9.920	1.391	0.125	
6836G654/F	238.3	1.831	0.855	2.056	9.973	1.192	0.061	
6836G655/F	259.9	1.883	0.847	2.097	10.385	1.398	0.076	
6836G656/F	277.7	1.858	0.849	1.952	8.622	1.255	0.083	
6836G657/F	263.5	1.839	0.911	1.931	8.523	1.247	0.112	
6836G658/F	274.9	1.888	0.919	1.977	9.044	1.216	0.088	
6836G660/F	295.8	1.878	0.965	2.105	20.228	1.736	0.094	
6836G661/F	242.0	1.872	1.025	1.846	8.977	1.432	0.421	
6836G662/F	234.8	1.923	0.838	1.753	7.870	1.206	0.094	
6836G663/F	258.5	1.855	0.849	1.899	9.525	1.310	0.098	
6836G666/F	226.0	1.914	0.813	1.694	7.733	1.165	0.083	
6836G667/F	271.4	1.811	0.806	1.744	8.448	1.278	0.110	
6836G668/F	212.8	1.852	0.831	1.615	6.904	1.090	0.127	
6836G669/F	256.3	1.805	1.022	1.998	10.512	1.439	0.103	
6836G670/F	267.4	1.849	0.856	2.104	9.011	1.235	0.091	
6836G672/F	283.2	1.850	0.944	1.788	8.869	1.186	0.106	

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013F  
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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic					
		Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6836G673/F	242.1	1.848	0.895	1.664	7.308	1.321	0.113
6836G674/F	287.6	1.903	0.880	2.030	9.768	1.300	0.092
6836G675/F	257.6	1.890	0.903	1.987	11.252	1.996	0.122
6836G677/F	268.4	1.938	0.794	1.950	8.928	1.268	0.103
6836G681/F	272.3	1.927	1.099	1.960	8.460	1.261	0.117
6836G684/F	287.6	1.978	0.872	1.919	9.125	1.270	0.128
6836G686/F	231.0	1.925	0.866	2.364	10.609	2.675	0.102
6836G689/F	241.1	1.857	0.847	1.849	8.139	1.230	0.097
6836G690/F	236.8	1.823	0.836	1.849	8.875	1.192	0.110
6836G692/F	244.1	1.813	0.820	1.706	8.416	1.266	0.075
6836G694/F	255.8	1.842	0.838	1.806	9.304	1.460	0.070
6836G697/F	252.0	1.841	0.842	2.010	8.485	1.339	0.135
6836G700/F	209.6	1.828	0.730	1.580	6.587	1.126	1.002
	256.3	1.871	0.883	1.908	9.297	1.360	0.141
	21.9	0.043	0.081	0.171	2.322	0.305	0.174
	(30)	(30)	(30)	(30)	(30)	(30)	(30)
M e a n :							
Standard deviation:							
Number of observ. :							
6838H754/F	267.9	1.865	1.086	1.945	9.362	1.316	0.124
6838H755/F	229.6	1.786	0.775	2.366	7.711	1.108	0.096
6838H756/F	250.7	1.803	0.905	1.809	8.085	1.136	0.089
6838H758/F	247.8	1.861	0.904	2.164	8.813	1.297	0.124
6838H759/F	230.5	1.869	0.832	1.954	8.936	1.413	0.174
6838H760/F	245.1	1.885	0.909	1.892	8.921	1.333	0.104
6838H761/F	244.4	1.888	0.881	1.920	9.530	1.360	0.118
6838H762/F	237.7	1.829	0.894	1.920	8.646	1.304	0.078
6838H765/F	259.5	1.894	1.019	2.000	9.208	1.526	0.086
6838H767/F	251.5	1.893	0.794	1.895	8.634	1.403	0.090
6838H768/F	242.4	1.865	0.930	1.901	10.119	1.316	0.091
6838H769/F	232.5	1.885	0.795	1.745	7.909	1.191	0.098
6838H771/F	217.7	1.891	0.772	1.671	7.602	1.178	0.111
6838H773/F	256.8	1.835	0.782	1.892	9.364	1.235	0.102
6838H776/F	261.4	1.921	0.975	2.090	8.261	1.277	0.088
6838H777/F	242.5	1.704	0.890	1.853	8.051	1.159	0.107
6838H778/F	218.1	1.811	1.009	1.836	8.259	2.364	0.108
6838H779/F	265.1	1.836	0.896	2.017	8.468	1.281	0.103
6838H780/F	236.3	1.880	0.897	1.899	12.439	1.536	0.156
6838H781/F	244.3	1.878	0.934	1.891	8.720	1.280	0.110
6838H782/F	240.3	1.810	0.933	1.842	8.641	1.146	0.115
6838H784/F	202.7	1.935	0.834	1.689	5.137	1.264	0.090

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013F  
 Scheduled Sacrifices FS  
 Rat/F344/N  
 Study start date: 30-May-01  
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Animal No/sex	Group/ Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6838H787/F	4/1	266.0	0.072	1.867	0.802	2.198	11.416	1.727	0.116
6838H788/F	4/1	244.1	0.053	1.782	0.766	1.859	9.184	1.169	0.107
6838H789/F	4/1	247.7	0.056	1.928	0.957	1.997	8.518	1.366	0.148
6838H790/F	4/1	238.2	0.026	1.861	1.049	1.867	8.661	1.321	0.106
6838H791/F	4/1	265.6	0.057	1.893	0.987	2.142	11.866	2.178	0.075
6838H793/F	4/1	231.8	0.051	1.837	0.853	1.956	11.979	1.673	0.090
6838H794/F	4/1	258.7	0.066	1.846	0.843	1.965	8.605	1.213	0.111
6838H796/F	4/1	240.6	0.055	1.856	0.848	1.958	8.097	1.253	0.099
6838H798/F	4/1	256.0	0.057	1.878	0.808	1.920	9.152	1.196	0.098
6838H799/F	4/1	215.8	0.059	1.862	0.767	1.604	7.680	1.193	0.075
6838H800/F	4/1	247.9	0.062	1.832	0.837	2.140	11.218	1.616	0.094
		243.6\$	0.058\$	1.857*	0.884	1.933	9.036	1.374	0.105
Standard deviation:		15.7	0.009	0.046	0.086	0.155	1.452	0.278	0.022
Number of observ. :		(33)	(33)	(33)	(33)	(33)	(33)	(33)	(33)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013F  
 Scheduled Sacrifices FS  
 Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic

Rat/F344/N Animal Group/ Terminal No/sex Subgroup Body wt. (g) Uterus Splene

		F e m a l e		A n i m a l s	
6832E451/F	1/1	290.9	0.896	0.592	
6832E452/F	1/1	265.5	0.986	0.623	
6832E456/F	1/1	272.8	2.478	0.983	
6832E458/F	1/1	257.4	0.592	0.646	
6832E460/F	1/1	277.6	1.318	3.997	
6832E461/F	1/1	300.6	0.764	0.728	
6832E462/F	1/1	304.3	1.789	0.754	
6832E463/F	1/1	277.1	4.344	0.732	
6832E464/F	1/1	217.4	4.264	0.609	
6832E467/F	1/1	301.9	0.744	0.573	
6832E472/F	1/1	165.8	0.552	0.736	
6832E475/F	1/1	260.0	0.600	0.509	
6832E478/F	1/1	263.4	0.670	0.809	
6832E483/F	1/1	271.8	0.601	0.607	
6832E486/F	1/1	265.4	0.721	0.554	
6832E489/F	1/1	263.9	0.536	0.811	
6832E490/F	1/1	223.6	4.246	0.595	
6832E493/F	1/1	230.8	15.518	0.517	
6832E495/F	1/1	301.6	0.665	0.975	
6832E497/F	1/1	269.1	1.997	0.842	
6832E498/F	1/1	254.1	0.500	0.823	
6832E500/F	1/1	303.6	1.635	0.527	
Standard deviation:		265.4	2.110	0.843	
Number of observ. :		33.3	3.251	0.718	
		(22)	(22)	(22)	
6834F551/F	2/1	280.6	1.344	0.678	
6834F553/F	2/1	278.5	0.899	0.576	
6834F554/F	2/1	281.2	0.517	0.536	
6834F555/F	2/1	297.4	0.861	0.680	
6834F557/F	2/1	264.6	0.592	1.306	
6834F558/F	2/1	263.2	0.795	0.726	
6834F559/F	2/1	245.3	0.807	0.591	
6834F560/F	2/1	283.1	0.634	0.617	
6834F561/F	2/1	277.0	0.815	0.924	
6834F563/F	2/1	288.7	0.649	1.310	
6834F564/F	2/1	221.5	0.572	0.487	
6834F569/F	2/1	312.4	0.771	0.801	

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013F  
 Scheduled Sacrifices FS  
 Study start date: 30-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6834F570/F	268.6	2.156	0.709
6834F573/F	258.5	0.626	0.774
6834F574/F	265.2	0.617	0.985
6834F575/F	309.2	1.030	1.460
6834F579/F	299.6	4.593	0.635
6834F580/F	296.3	1.260	0.733
6834F583/F	276.2	0.609	0.880
6834F584/F	258.5	2.657	0.885
6834F585/F	234.6	1.469	0.770
6834F586/F	286.9	0.783	0.595
6834F587/F	282.6	0.854	0.623
6834F588/F	267.6	0.697	0.745
6834F591/F	256.1	1.207	0.667
6834F592/F	274.7	0.721	0.573
6834F596/F	262.2	0.729	0.746
6834F597/F	280.2	0.631	0.667
6834F598/F	252.7	0.522	0.839
6834F600/F	280.6	2.074	0.620
Mean:	273.5	1.083	0.771
Standard deviation:	20.4	0.842	0.232
Number of observ. :	(30)	(30)	(30)
6836G651/F	262.8	0.645	1.139
6836G652/F	277.7	1.535	0.615
6836G654/F	238.3	0.848	0.583
6836G655/F	259.9	1.405	0.585
6836G656/F	277.7	0.718	0.858
6836G657/F	263.5	0.615	0.620
6836G658/F	274.9	0.963	0.534
6836G660/F	295.8	2.544	0.734
6836G661/F	242.0	0.955	3.095
6836G662/F	234.8	0.615	0.731
6836G663/F	258.5	0.702	0.699
6836G666/F	226.0	0.393	0.677
6836G667/F	271.4	0.638	1.299
6836G668/F	212.8	0.338	1.095
6836G669/F	256.3	0.670	1.372
6836G670/F	267.4	0.689	0.829
6836G672/F	283.2	1.147	0.569

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013F  
 Scheduled Sacrifices FS  
 Study start date: 30-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6836G673/F	242.1	0.530	1.148
6836G674/F	287.6	0.697	0.881
6836G675/F	257.6	3.393	0.707
6836G677/F	268.4	0.758	0.675
6836G681/F	272.3	0.589	0.911
6836G684/F	287.6	0.830	0.621
6836G686/F	231.0	2.587	0.765
6836G689/F	241.1	0.828	0.913
6836G690/F	236.8	0.635	1.078
6836G692/F	244.1	0.508	0.543
6836G694/F	255.8	1.738	0.730
6836G697/F	252.0	0.641	0.949
6836G700/F	209.6	0.463	3.191
	256.3	0.987	0.972
	21.9	0.714	0.632
	(30)	(30)	(30)
M e a n:			
Standard deviation:			
Number of observ. :			
6838H754/F	267.9	0.578	0.674
6838H755/F	229.6	0.727	0.659
6838H756/F	250.7	0.686	0.585
6838H758/F	247.8	0.760	0.855
6838H759/F	230.5	1.062	0.960
6838H760/F	245.1	0.667	0.728
6838H761/F	244.4	2.194	0.785
6838H762/F	237.7	1.199	0.694
6838H765/F	259.5	0.564	0.970
6838H767/F	251.5	4.216	1.220
6838H768/F	242.4	1.189	0.648
6838H769/F	232.5	0.564	2.009
6838H771/F	217.7	0.483	0.663
6838H773/F	256.8	0.658	0.852
6838H776/F	261.4	0.841	0.693
6838H777/F	242.5	0.800	0.556
6838H778/F	218.1	8.518	0.706
6838H779/F	265.1	0.865	0.563
6838H780/F	236.3	2.942	2.121
6838H781/F	244.3	0.576	0.679
6838H782/F	240.3	0.515	0.594
6838H784/F	202.7	0.445	0.598

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013F  
 Scheduled Sacrifices FS  
 Rat/F344/N  
 Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic

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Animal No/sex	Group/ Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6838H787	F	266.0	1.822	0.906
6838H788	F	244.1	0.638	0.599
6838H789	F	247.7	0.698	0.706
6838H790	F	238.2	0.605	0.738
6838H791	F	265.6	12.388	0.716
6838H793	F	231.8	2.487	0.851
6838H794	F	258.7	0.652	0.946
6838H796	F	240.6	0.696	0.700
6838H798	F	256.0	0.630	0.718
6838H799	F	215.8	0.505	0.522
6838H800	F	247.9	3.306	1.049
M e a n:				0.826
Standard deviation:				0.356
Number of observ. :				(33)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

K-2 Percent Organ to Body Weight, Male and Female, Final Sacrifice

Summary Statistics for % Organ to Body Weight  
Study number: FY01013M  
Scheduled Sacrifices FS  
Study start date: 23-May-01

Lovelace Respiratory  
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Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain		Epididymis		Heart		Kidneys		Liver		Lungs
			M a l e	A n i m a l s	M a l e	A n i m a l s	M a l e	A n i m a l s	M a l e	A n i m a l s	M a l e	A n i m a l s	
6831E407/M	1/1	403.2	0.019	0.542	0.190	0.344	0.783	3.740	0.462				
6831E413/M	1/1	379.5	0.021	0.559	0.075	0.307	0.682	3.802	0.481				
6831E415/M	1/1	395.5	0.016	0.527	0.131	0.279	0.744	5.685	0.561				
6831E418/M	1/1	398.8	0.019	0.544	0.157	0.318	0.767	3.549	0.467				
6831E422/M	1/1	384.3	0.014	0.540	0.190	0.292	0.748	3.444	0.448				
6831E435/M	1/1	355.1	0.022	0.574	0.219	0.364	0.922	4.784	0.489				
6831E436/M	1/1	393.1	0.018	0.522	0.087	0.293	0.742	3.850	0.417				
6831E437/M	1/1	398.3	0.019	0.535	0.246	0.307	0.682	3.077	0.436				
6831E440/M	1/1	396.8	0.111	0.531	0.095	0.310	0.723	3.561	0.456				
6831E442/M	1/1	383.6	0.025	0.545	0.129	0.282	0.871	7.938	0.653				
6831E443/M	1/1	404.7	0.017	0.514	0.113	0.287	0.691	3.229	0.412				
6831E446/M	1/1	352.3	0.017	0.578	0.134	0.350	0.761	4.538	0.694				
6831E448/M	1/1	396.0	0.015	0.516	0.125	0.258	0.666	3.231	0.447				
6831E449/M	1/1	418.7	0.019	0.521	0.088	0.316	0.677	3.568	0.487				
M e a n:		390.0	0.025	0.539	0.141	0.308	0.747	4.143	0.494				
Standard deviation:		18.2	0.020	0.020	0.052	0.030	0.074	1.302	0.085				
Number of observ. :		(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)			(14)	
6833F502/M	2/1	384.3	0.022	0.553	0.093	0.350	0.730	3.504	0.470				
6833F505/M	2/1	400.1	0.015	0.500	0.098	0.307	0.738	3.849	0.480				
6833F508/M	2/1	387.3	0.018	0.535	0.160	0.325	0.756	3.506	0.558				
6833F511/M	2/1	411.5	0.017	0.521	0.096	0.322	0.707	3.474	0.487				
6833F513/M	2/1	280.5	0.026	0.720	0.125	0.369	0.912	4.241	1.067				
6833F516/M	2/1	377.9	0.019	0.542	0.112	0.287	0.687	4.659	0.676				
6833F519/M	2/1	416.2	0.016	0.503	0.105	0.327	0.764	3.169	0.473				
6833F521/M	2/1	335.6	0.024	0.611	0.115	0.374	0.784	5.688	1.153				
6833F523/M	2/1	408.3	0.013	0.507	0.117	0.266	0.675	3.097	0.534				
6833F525/M	2/1	393.6	0.443	0.533	0.094	0.305	0.856	4.477	0.634				
6833F526/M	2/1	362.5	0.024	0.563	0.143	0.315	1.092	4.949	0.690				
6833F535/M	2/1	409.1	0.017	0.506	0.094	0.293	0.766	3.193	0.555				
6833F536/M	2/1	340.7	0.021	0.613	0.165	0.335	0.773	3.382	0.484				
6833F542/M	2/1	365.4	0.018	0.555	0.131	0.315	0.734	3.547	0.496				
6833F547/M	2/1	366.3	0.019	0.544	0.132	0.339	0.790	3.570	0.475				
6833F550/M	2/1	368.4	0.018	0.559	0.091	0.294	1.318	5.128	0.503				
M e a n:		375.5	0.046	0.554	0.117	0.320	0.818	3.965	0.609				
Standard deviation:		35.2	0.106	0.056	0.024	0.029	0.167	0.793	0.209				
Number of observ. :		(16)	(16)	(16)	(16)	(16)	(16)	(16)	(16)			(16)	

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Rat/F344/N		Inhalation/whole-body/Chronic										
Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs				
6835G601/M	3/1	382.8	0.013	0.543	0.104	0.259	0.710	3.260	0.486			
6835G602/M	3/1	368.3	0.030	0.570	0.096	0.326	0.841	3.939	0.570			
6835G603/M	3/1	375.0	0.017	0.541	0.088	0.280	0.765	3.495	0.501			
6835G605/M	3/1	354.7	0.027	0.571	0.102	0.345	0.851	4.052	0.806			
6835G607/M	3/1	372.0	0.018	0.553	0.101	0.305	0.823	4.014	0.454			
6835G609/M	3/1	394.9	0.018	0.550	0.101	0.317	0.778	3.581	0.496			
6835G610/M	3/1	368.2	0.017	0.580	0.088	0.305	0.737	3.282	0.546			
6835G613/M	3/1	374.6	0.017	0.553	0.097	0.317	0.707	3.401	0.510			
6835G614/M	3/1	389.1	0.019	0.537	0.152	0.374	0.794	3.697	0.507			
6835G615/M	3/1	349.7	0.021	0.598	0.112	0.319	0.920	4.799	0.919			
6835G617/M	3/1	359.5	0.024	0.553	0.113	0.319	0.869	3.663	0.474			
6835G621/M	3/1	350.0	0.027	0.587	0.111	0.301	0.745	3.992	0.497			
6835G628/M	3/1	378.2	0.018	0.540	0.109	0.344	0.740	3.569	0.520			
6835G630/M	3/1	366.6	0.021	0.566	0.082	0.299	0.770	3.738	0.549			
6835G634/M	3/1	396.2	0.017	0.536	0.137	0.334	0.858	4.065	0.510			
6835G638/M	3/1	392.6	0.017	0.544	0.127	0.391	0.803	4.195	0.636			
6835G639/M	3/1	383.2	0.021	0.526	0.105	0.337	0.752	3.675	0.686			
6835G647/M	3/1	401.1	0.017	0.523	0.118	0.301	0.703	3.804	0.461			
6835G648/M	3/1	268.6	0.028	0.745	0.214	0.375	1.264	4.983	0.904			
6835G649/M	3/1	349.5	0.020	0.591	0.120	0.324	0.775	4.021	0.507			
Standard deviation:		368.7	0.020	0.565%	0.114	0.324	0.810	3.861	0.577%			
Number of observ. :		28.5	0.005	0.047	0.029	0.032	0.122	0.443	0.142			
		(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)			
6837H702/M	4/1	382.2	0.019	0.550	0.112	0.304	0.805	3.736	0.517			
6837H704/M	4/1	397.1	0.018	0.523	0.136	0.304	0.710	3.532	0.429			
6837H705/M	4/1	399.2	0.017	0.543	0.113	0.306	0.927	4.670	0.919			
6837H706/M	4/1	356.7	0.020	0.594	0.160	0.341	0.897	4.139	0.543			
6837H708/M	4/1	346.6	0.018	0.567	0.090	0.304	0.873	6.428	0.682			
6837H714/M	4/1	335.0	0.020	0.606	0.135	0.291	0.886	4.230	0.498			
6837H717/M	4/1	371.8	0.020	0.531	0.107	0.317	0.924	3.368	0.512			
6837H722/M	4/1	335.5	0.021	0.618	0.117	0.300	0.879	6.497	0.981			
6837H724/M	4/1	351.4	0.020	0.607	0.109	0.362	1.136	4.559	0.771			
6837H725/M	4/1	271.3	0.034	0.733	0.163	0.383	1.134	6.456	1.005			
6837H726/M	4/1	376.6	0.022	0.546	0.093	0.300	0.781	4.027	0.494			
6837H728/M	4/1	348.4	0.017	0.568	0.086	0.307	0.740	4.019	0.478			
6837H729/M	4/1	355.9	0.020	0.584	0.096	0.323	0.736	3.835	0.540			
6837H735/M	4/1	357.6	0.021	0.576	0.147	0.308	0.792	3.829	0.496			
6837H736/M	4/1	371.5	0.020	0.545	0.163	0.335	0.874	4.281	0.524			

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Body Weight

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Study number: FY01013M  
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Study start date: 23-May-01

Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs	
6837H739/M	4/1	371.6	0.015	0.549	0.144	0.313	0.790	3.500	0.481
6837H741/M	4/1	361.3	0.022	0.554	0.105	0.308	0.760	4.053	0.528
6837H747/M	4/1	365.8	0.026	0.579	0.118	0.316	0.895	4.398	0.472
6837H749/M	4/1	328.0	0.017	0.625	0.093	0.333	0.799	3.620	0.576
Mean:		357.0+	0.020	0.579\$	0.120	0.319	0.860\$	4.378	0.602%
Standard deviation:		28.4	0.004	0.048	0.026	0.023	0.118	0.991	0.181
Number of observ. :		(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
%(\$) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Rat/F344/N Animal Group/ Terminal No/sex Subgroup Body wt. (g) Testes Spleen

Animal Group/ Terminal No/sex Subgroup	Body wt. (g)	Testes	Spleen	Animals
6831E407/M	1/1	403.2	0.297	0.968
6831E413/M	1/1	379.5	0.475	1.504
6831E415/M	1/1	395.5	1.148	3.617
6831E418/M	1/1	398.8	0.582	1.221
6831E422/M	1/1	384.3	0.586	1.076
6831E435/M	1/1	355.1	0.457	0.777
6831E436/M	1/1	393.1	0.424	1.226
6831E437/M	1/1	398.3	0.329	0.734
6831E440/M	1/1	396.8	0.271	0.522
6831E442/M	1/1	383.6	1.993	1.379
6831E443/M	1/1	404.7	0.410	1.206
6831E446/M	1/1	352.3	1.323	0.750
6831E448/M	1/1	396.0	0.603	1.350
6831E449/M	1/1	418.7	0.432	2.128
Mean		390.0	0.666	1.318
Standard deviation:		18.2	0.489	0.774
Number of observ. :		(14)	(14)	(14)
6833F502/M	2/1	384.3	0.482	1.777
6833F505/M	2/1	400.1	0.460	2.221
6833F508/M	2/1	387.3	0.460	1.542
6833F511/M	2/1	411.5	0.418	1.714
6833F513/M	2/1	280.5	1.925	0.561
6833F516/M	2/1	377.9	1.601	1.744
6833F519/M	2/1	416.2	0.476	1.243
6833F521/M	2/1	335.6	6.247	0.957
6833F523/M	2/1	408.3	0.744	1.286
6833F525/M	2/1	393.6	0.987	1.110
6833F526/M	2/1	362.5	1.356	1.159
6833F535/M	2/1	409.1	1.062	1.300
6833F536/M	2/1	340.7	0.281	1.263
6833F542/M	2/1	365.4	0.510	1.271
6833F547/M	2/1	366.3	0.330	1.043
6833F550/M	2/1	368.4	0.564	2.405
Mean		375.5	1.119	1.412
Standard deviation:		35.2	1.451	0.470
Number of observ. :		(16)	(16)	(16)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Body Weight  
Study number: FY01013M  
Scheduled Sacrifices FS  
Study start date: 23-May-01

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Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6835G601/M	3/1	382.8	2.661
6835G602/M	3/1	368.3	2.493
6835G603/M	3/1	375.0	0.751
6835G605/M	3/1	354.7	0.864
6835G607/M	3/1	372.0	1.510
6835G609/M	3/1	394.9	2.281
6835G610/M	3/1	368.2	2.554
6835G613/M	3/1	374.6	2.049
6835G614/M	3/1	389.1	1.869
6835G615/M	3/1	349.7	1.038
6835G617/M	3/1	359.5	0.677
6835G621/M	3/1	350.0	0.523
6835G628/M	3/1	378.2	2.177
6835G630/M	3/1	366.6	1.734
6835G634/M	3/1	396.2	1.124
6835G638/M	3/1	392.6	1.115
6835G639/M	3/1	383.2	1.630
6835G647/M	3/1	401.1	1.532
6835G648/M	3/1	268.6	1.777
6835G649/M	3/1	349.5	1.404
Standard deviation:	28.5	1.105	1.143
Number of observ. :	(20)	0.832	1.616
		0.720	0.617
		(20)	(20)
6837H702/M	4/1	382.2	2.371
6837H704/M	4/1	397.1	1.010
6837H705/M	4/1	399.2	1.127
6837H706/M	4/1	356.7	0.751
6837H708/M	4/1	346.6	2.313
6837H714/M	4/1	335.0	2.467
6837H717/M	4/1	371.8	1.712
6837H722/M	4/1	335.5	0.580
6837H724/M	4/1	351.4	1.355
6837H725/M	4/1	271.3	0.749
6837H726/M	4/1	376.6	2.876
6837H728/M	4/1	348.4	2.616
6837H729/M	4/1	355.9	1.867
6837H735/M	4/1	357.6	1.972
6837H736/M	4/1	371.5	1.982

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
\*(§) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Rat/F344/N Animal Group/ Terminal Testes Inhalation/whole-bdy/Chronic

No/sex	Subgroup	Body wt. (g)	Spleen	Testes
6837H739/M	4/1	371.6	0.378	1.816
6837H741/M	4/1	361.3	1.080	2.110
6837H747/M	4/1	365.8	0.489	1.807
6837H749/M	4/1	328.0	0.498	1.993
Mean:		357.0+	1.437	1.762
Standard deviation:		28.4	2.046	0.667
Number of observ. :		(19)	(19)	(19)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
%(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Body Weight  
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Rat/F344/N Animal Group/ Terminal Body wt. (g) Adrenal glands Brain Heart Kidneys Lungs Ovaries

Animal Group/ Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6832E451/F	290.9	0.024	F e m a l e	0.354	A n i m a l s	3.548	0.499	0.032
6832E452/F	265.5	0.029	0.644	0.343	0.664	3.296	0.481	0.049
6832E456/F	272.8	0.025	0.714	0.341	0.721	3.428	0.501	0.032
6832E458/F	257.4	0.021	0.667	0.339	0.667	3.348	0.469	0.043
6832E460/F	277.6	0.024	0.722	0.336	0.673	3.492	0.488	0.034
6832E461/F	300.6	0.025	0.678	0.378	0.663	3.513	0.442	0.032
6832E462/F	304.3	0.023	0.650	0.280	0.674	4.054	0.627	0.034
6832E463/F	277.1	0.026	0.704	0.337	0.686	3.810	0.676	0.034
6832E464/F	217.4	0.028	0.843	0.431	0.832	3.050	0.931	0.032
6832E467/F	301.9	0.023	0.627	0.299	0.629	3.089	0.473	0.038
6832E472/F	165.8	0.045	1.053	0.531	2.073	3.957	0.754	0.052
6832E475/F	260.0	0.023	0.749	0.313	0.690	3.066	0.508	0.043
6832E478/F	263.4	0.021	0.727	0.306	0.716	3.266	0.490	0.038
6832E483/F	271.8	0.023	0.680	0.302	0.635	3.257	0.460	0.045
6832E486/F	265.4	0.022	0.700	0.321	0.703	3.255	0.499	0.037
6832E489/F	263.9	0.026	0.737	0.325	0.701	3.218	0.460	0.036
6832E490/F	223.6	0.023	0.849	0.414	0.810	5.302	1.320	0.032
6832E493/F	230.8	0.028	0.843	0.429	0.869	4.366	1.277	0.015
6832E495/F	301.6	0.028	0.657	0.352	0.690	3.260	0.498	0.182
6832E497/F	269.1	0.023	0.673	0.338	0.647	3.627	0.542	0.035
6832E498/F	254.1	0.025	0.782	0.344	0.701	2.858	0.483	0.042
6832E500/F	303.6	0.021	0.626	0.344	0.656	3.061	0.465	0.035
Standard deviation:	265.4	0.025	0.725	0.353	0.763	3.506	0.606	0.043
Number of observ. :	33.3	0.005	0.100	0.056	0.299	0.542	0.252	0.032
	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)
6834F551/F	280.6	0.017	0.668	0.289	0.703	3.799	0.506	0.035
6834F553/F	278.5	0.025	0.697	0.320	0.712	3.192	0.483	0.037
6834F554/F	281.2	0.021	0.659	0.313	0.682	3.261	0.512	0.038
6834F555/F	297.4	0.024	0.637	0.307	0.653	3.347	0.481	0.050
6834F557/F	264.6	0.021	0.720	0.365	0.733	3.079	0.494	0.051
6834F558/F	263.2	0.025	0.696	0.351	0.739	3.866	0.465	0.041
6834F559/F	245.3	0.028	0.760	0.371	0.736	3.211	0.507	0.044
6834F560/F	283.1	0.021	0.684	0.316	0.715	3.023	0.472	0.034
6834F561/F	277.0	0.024	0.655	0.330	0.722	3.274	0.484	0.042
6834F563/F	288.7	0.026	0.646	0.361	0.731	3.679	0.436	0.046
6834F564/F	221.5	0.027	0.805	0.353	0.878	3.483	0.539	0.053
6834F569/F	312.4	0.026	0.612	0.312	0.649	3.521	0.421	0.037

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
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Summary Statistics for % Organ to Body Weight  
Study number: FY01013F  
Scheduled Sacrifices FS  
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Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6834F570/F	268.6	0.022	0.716	0.292	0.683	3.479	0.477	0.045
6834F573/F	258.5	0.023	0.704	0.329	0.694	3.149	0.481	0.027
6834F574/F	265.2	0.023	0.685	0.319	0.705	3.164	0.490	0.042
6834F575/F	309.2	0.022	0.619	0.284	0.666	3.006	0.437	0.035
6834F579/F	299.6	0.024	0.638	0.338	0.735	4.111	0.561	0.037
6834F580/F	296.3	0.022	0.639	0.303	0.663	3.022	0.410	0.038
6834F583/F	276.2	0.020	0.694	0.363	0.680	3.103	0.526	0.051
6834F584/F	258.5	0.019	0.729	0.325	0.448	8.934	0.599	0.071
6834F585/F	234.6	0.024	0.806	0.411	0.762	3.682	0.789	0.041
6834F586/F	286.9	0.025	0.648	0.286	0.644	3.127	0.462	0.036
6834F587/F	282.6	0.022	0.680	0.342	0.690	3.113	0.467	0.042
6834F588/F	267.6	0.018	0.636	0.366	0.660	3.236	0.508	0.047
6834F591/F	256.1	0.024	0.745	0.350	0.750	3.349	0.530	0.043
6834F592/F	274.7	0.021	0.680	0.328	0.680	2.938	0.498	0.039
6834F596/F	262.2	0.025	0.710	0.317	0.720	4.265	0.485	0.166
6834F597/F	280.2	0.024	0.673	0.301	0.657	3.120	0.485	0.047
6834F598/F	252.7	0.023	0.734	0.320	0.755	3.367	0.488	0.035
6834F600/F	280.6	0.022	0.694	0.281	0.661	3.552	0.571	0.047
Mean:	273.5	0.023	0.689	0.328	0.697	3.548	0.502	0.047
Standard deviation:	20.4	0.002	0.049	0.031	0.067	1.069	0.068	0.024
Number of observ. :	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
6836G651/F	262.8	0.025	0.723	0.339	0.792	3.471	0.500	0.030
6836G652/F	277.7	0.024	0.691	0.298	0.697	3.572	0.501	0.045
6836G654/F	238.3	0.027	0.768	0.359	0.863	4.185	0.500	0.026
6836G655/F	259.9	0.028	0.724	0.326	0.807	3.996	0.538	0.029
6836G656/F	277.7	0.023	0.669	0.306	0.703	3.105	0.452	0.030
6836G657/F	263.5	0.022	0.698	0.346	0.733	3.234	0.473	0.043
6836G658/F	274.9	0.022	0.687	0.334	0.719	3.290	0.442	0.032
6836G660/F	295.8	0.029	0.635	0.326	0.712	6.839	0.587	0.032
6836G661/F	242.0	0.018	0.774	0.424	0.763	3.710	0.592	0.174
6836G662/F	234.8	0.028	0.819	0.357	0.746	3.351	0.514	0.040
6836G663/F	258.5	0.020	0.718	0.328	0.735	3.684	0.507	0.038
6836G666/F	226.0	0.024	0.847	0.360	0.750	3.422	0.516	0.037
6836G667/F	271.4	0.024	0.667	0.297	0.643	3.113	0.471	0.041
6836G668/F	212.8	0.081	0.870	0.390	0.759	3.244	0.512	0.060
6836G669/F	256.3	0.022	0.704	0.399	0.780	4.102	0.562	0.040
6836G670/F	267.4	0.022	0.691	0.320	0.787	3.369	0.462	0.034
6836G672/F	283.2	0.023	0.653	0.333	0.631	3.132	0.419	0.037

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Rat/F344/N Animal Group/ Subgroup Terminal Body wt. (g) Adrenal glands Brain Heart Kidneys Liver Lungs Inhalation/whole-bdy/Chronic Ovaries

6836G673/F	3/1	242.1	0.021	0.763	0.370	0.687	3.019	0.546	0.047
6836G674/F	3/1	287.6	0.022	0.662	0.306	0.706	3.397	0.452	0.032
6836G675/F	3/1	257.6	0.020	0.734	0.385	0.771	4.368	0.775	0.047
6836G677/F	3/1	268.4	0.023	0.722	0.296	0.727	3.326	0.472	0.038
6836G681/F	3/1	272.3	0.023	0.708	0.404	0.720	3.106	0.463	0.043
6836G684/F	3/1	287.6	0.023	0.688	0.303	0.667	3.173	0.442	0.045
6836G686/F	3/1	231.0	0.032	0.833	0.427	1.023	4.592	1.158	0.044
6836G689/F	3/1	241.1	0.025	0.770	0.351	0.767	3.376	0.510	0.040
6836G690/F	3/1	236.8	0.024	0.770	0.353	0.781	3.748	0.503	0.046
6836G692/F	3/1	244.1	0.023	0.743	0.336	0.699	3.447	0.519	0.031
6836G694/F	3/1	255.8	0.022	0.720	0.328	0.706	3.637	0.571	0.027
6836G697/F	3/1	252.0	0.027	0.731	0.334	0.798	3.368	0.531	0.054
6836G700/F	3/1	209.6	0.031	0.872	0.348	0.754	3.143	0.537	0.478
		256.3	0.026	0.735	0.346	0.747	3.617	0.534	0.058
		21.9	0.011	0.063	0.036	0.072	0.726	0.135	0.083
		(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
Standard deviation:									
Number of observ. :									
6838H754/F	4/1	267.9	0.021	0.696	0.405	0.726	3.494	0.491	0.046
6838H755/F	4/1	229.6	0.021	0.778	0.338	1.030	3.358	0.483	0.042
6838H756/F	4/1	250.7	0.023	0.719	0.361	0.722	3.225	0.453	0.036
6838H758/F	4/1	247.8	0.025	0.751	0.365	0.873	3.557	0.523	0.050
6838H759/F	4/1	230.5	0.032	0.811	0.361	0.848	3.876	0.613	0.075
6838H760/F	4/1	245.1	0.024	0.769	0.371	0.772	3.640	0.544	0.042
6838H761/F	4/1	244.4	0.029	0.772	0.360	0.786	3.899	0.556	0.048
6838H762/F	4/1	237.7	0.024	0.770	0.376	0.808	3.638	0.549	0.033
6838H765/F	4/1	259.5	0.019	0.730	0.393	0.771	3.549	0.588	0.033
6838H767/F	4/1	251.5	0.023	0.753	0.316	0.754	3.433	0.558	0.036
6838H768/F	4/1	242.4	0.026	0.769	0.384	0.784	4.174	0.543	0.038
6838H769/F	4/1	232.5	0.022	0.811	0.342	0.751	3.402	0.512	0.042
6838H771/F	4/1	217.7	0.024	0.869	0.355	0.768	3.492	0.541	0.051
6838H773/F	4/1	256.8	0.023	0.715	0.305	0.737	3.646	0.481	0.040
6838H776/F	4/1	261.4	0.029	0.735	0.373	0.800	3.543	0.489	0.034
6838H777/F	4/1	242.5	0.024	0.703	0.367	0.764	3.319	0.478	0.044
6838H778/F	4/1	218.1	0.025	0.830	0.463	0.842	3.786	1.084	0.050
6838H779/F	4/1	265.1	0.023	0.693	0.338	0.761	3.194	0.483	0.039
6838H780/F	4/1	236.3	0.025	0.796	0.380	0.804	5.264	0.650	0.066
6838H781/F	4/1	244.3	0.020	0.769	0.382	0.774	3.569	0.524	0.045
6838H782/F	4/1	240.3	0.029	0.753	0.388	0.766	3.595	0.477	0.048
6838H784/F	4/1	202.7	0.030	0.955	0.412	0.833	2.535	0.624	0.044

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Body Weight  
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Rat/F344/N		Inhalation/whole-bdy/Chronic									
Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Brain	Heart	Kidneys	Liver	Lungs	Ovaries				
6838H787/F	4/1	266.0	0.702	0.302	0.826	4.293	0.649	0.044			
6838H788/F	4/1	244.1	0.730	0.314	0.761	3.762	0.479	0.044			
6838H789/F	4/1	247.7	0.778	0.386	0.806	3.439	0.551	0.060			
6838H790/F	4/1	238.2	0.781	0.440	0.784	3.636	0.555	0.044			
6838H791/F	4/1	265.6	0.713	0.372	0.807	4.468	0.820	0.028			
6838H793/F	4/1	231.8	0.792	0.368	0.844	5.168	0.722	0.039			
6838H794/F	4/1	258.7	0.714	0.326	0.760	3.326	0.469	0.043			
6838H796/F	4/1	240.6	0.771	0.352	0.814	3.365	0.521	0.041			
6838H798/F	4/1	256.0	0.734	0.316	0.750	3.575	0.467	0.038			
6838H799/F	4/1	215.8	0.863	0.355	0.743	3.559	0.553	0.035			
6838H800/F	4/1	247.9	0.739	0.338	0.863	4.525	0.652	0.038			
		243.6\$	0.766	0.364	0.795	3.706	0.566	0.043			
Standard deviation:		15.7	0.056	0.036	0.058	0.540	0.123	0.010			
Number of observ. :		(33)	(33)	(33)	(33)	(33)	(33)	(33)			

M e a n:  
Standard deviation:  
Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
%(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Body Weight  
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 Scheduled Sacrifices FS  
 Rat/F344/N Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Female Animals
6832E451/F	290.9	0.308	0.204
6832E452/F	265.5	0.371	0.235
6832E456/F	272.8	0.908	0.360
6832E458/F	257.4	0.230	0.251
6832E460/F	277.6	0.475	1.440
6832E461/F	300.6	0.254	0.242
6832E462/F	304.3	0.588	0.248
6832E463/F	277.1	1.568	0.264
6832E464/F	217.4	1.961	0.280
6832E467/F	301.9	0.246	0.190
6832E472/F	165.8	0.333	0.444
6832E475/F	260.0	0.231	0.196
6832E478/F	263.4	0.254	0.307
6832E483/F	271.8	0.221	0.223
6832E486/F	265.4	0.272	0.209
6832E489/F	263.9	0.203	0.307
6832E490/F	223.6	1.899	0.266
6832E493/F	230.8	6.723	0.224
6832E495/F	301.6	0.220	0.323
6832E497/F	269.1	0.742	0.313
6832E498/F	254.1	0.197	0.324
6832E500/F	303.6	0.538	0.174
Mean:	265.4	0.852	0.319
Standard deviation:	33.3	1.419	0.258
Number of observ.:	(22)	(22)	(22)
6834F551/F	280.6	0.479	0.242
6834F553/F	278.5	0.323	0.207
6834F554/F	281.2	0.184	0.191
6834F555/F	297.4	0.290	0.229
6834F557/F	264.6	0.224	0.494
6834F558/F	263.2	0.302	0.276
6834F559/F	245.3	0.329	0.241
6834F560/F	283.1	0.224	0.218
6834F561/F	277.0	0.294	0.334
6834F563/F	288.7	0.225	0.454
6834F564/F	221.5	0.258	0.220
6834F569/F	312.4	0.247	0.256

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Summary Statistics for % Organ to Body Weight  
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Rat/F344/N  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6834F570/F	268.6	0.803	0.264
6834F573/F	258.5	0.242	0.299
6834F574/F	265.2	0.233	0.371
6834F575/F	309.2	0.333	0.472
6834F579/F	299.6	1.533	0.212
6834F580/F	296.3	0.425	0.247
6834F583/F	276.2	0.220	0.319
6834F584/F	258.5	1.028	0.342
6834F585/F	234.6	0.626	0.328
6834F586/F	286.9	0.273	0.207
6834F587/F	282.6	0.302	0.220
6834F588/F	267.6	0.260	0.278
6834F591/F	256.1	0.471	0.260
6834F592/F	274.7	0.262	0.209
6834F596/F	262.2	0.278	0.285
6834F597/F	280.2	0.225	0.238
6834F598/F	252.7	0.207	0.332
6834F600/F	280.6	0.739	0.221
Mean:	273.5	0.395	0.282
Standard deviation:	20.4	0.293	0.080
Number of observ. :	(30)	(30)	(30)
6836G651/F	262.8	0.245	0.433
6836G652/F	277.7	0.553	0.221
6836G654/F	238.3	0.356	0.245
6836G655/F	259.9	0.541	0.225
6836G656/F	277.7	0.259	0.309
6836G657/F	263.5	0.233	0.235
6836G658/F	274.9	0.350	0.194
6836G660/F	295.8	0.860	0.248
6836G661/F	242.0	0.395	1.279
6836G662/F	234.8	0.262	0.311
6836G663/F	258.5	0.272	0.270
6836G666/F	226.0	0.174	0.300
6836G667/F	271.4	0.235	0.479
6836G668/F	212.8	0.159	0.515
6836G669/F	256.3	0.261	0.535
6836G670/F	267.4	0.258	0.310
6836G672/F	283.2	0.405	0.201

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
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Summary Statistics for % Organ to Body Weight  
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 Scheduled Sacrifices FS  
 Study start date: 30-May-01

Rat/F344/N  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6836G673/F	242.1	0.219	0.474
6836G674/F	287.6	0.242	0.306
6836G675/F	257.6	1.317	0.274
6836G677/F	268.4	0.282	0.251
6836G681/F	272.3	0.216	0.335
6836G684/F	287.6	0.289	0.216
6836G686/F	231.0	1.120	0.331
6836G689/F	241.1	0.343	0.379
6836G690/F	236.8	0.268	0.455
6836G692/F	244.1	0.208	0.222
6836G694/F	255.8	0.679	0.285
6836G697/F	252.0	0.254	0.377
6836G700/F	209.6	0.221	1.522
	256.3	0.383	0.391
	21.9	0.275	0.293
	(30)	(30)	(30)
M e a n:			
Standard deviation:			
Number of observ. :			
	(30)		
6838H754/F	267.9	0.216	0.252
6838H755/F	229.6	0.317	0.287
6838H756/F	250.7	0.274	0.233
6838H758/F	247.8	0.307	0.345
6838H759/F	230.5	0.461	0.416
6838H760/F	245.1	0.272	0.297
6838H761/F	244.4	0.898	0.321
6838H762/F	237.7	0.504	0.292
6838H765/F	259.5	0.217	0.374
6838H767/F	251.5	1.676	0.485
6838H768/F	242.4	0.490	0.267
6838H769/F	232.5	0.243	0.864
6838H771/F	217.7	0.222	0.305
6838H773/F	256.8	0.256	0.332
6838H776/F	261.4	0.322	0.265
6838H777/F	242.5	0.330	0.229
6838H778/F	218.1	3.905	0.324
6838H779/F	265.1	0.326	0.212
6838H780/F	236.3	1.245	0.897
6838H781/F	244.3	0.236	0.278
6838H782/F	240.3	0.214	0.247
6838H784/F	202.7	0.220	0.295

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Body Weight  
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Rat/F344/N Animal Group/ Terminal Body wt. (g) Splene Uterus Inhalation/whole-bdy/Chronic

Rat/F344/N	Animal Group/	Terminal	Body wt. (g)	Splene	Uterus	Inhalation/whole-bdy/Chronic
6838H787/F	4/1		266.0	0.685	0.341	
6838H788/F	4/1		244.1	0.261	0.245	
6838H789/F	4/1		247.7	0.282	0.285	
6838H790/F	4/1		238.2	0.254	0.310	
6838H791/F	4/1		265.6	4.664	0.270	
6838H793/F	4/1		231.8	1.073	0.367	
6838H794/F	4/1		258.7	0.252	0.366	
6838H796/F	4/1		240.6	0.289	0.291	
6838H798/F	4/1		256.0	0.246	0.280	
6838H799/F	4/1		215.8	0.234	0.242	
6838H800/F	4/1		247.9	1.334	0.423	
			243.6\$	0.689	0.341	
			15.7	1.003	0.152	
			(33)	(33)	(33)	

Mean:  
Standard deviation:  
Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
\*(%) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

K-3 Percent Organ to Brain Weight, Male and Female, Final Sacrifice

Summary Statistics for % Organ to Brain Weight  
Study number: FY01013M  
Scheduled Sacrifices FS  
Study start date: 23-May-01

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Rat/F344/N Animal Group/ Terminal No/sex Subgroup Body wt. (g) Adrenal glands Epididymis Heart Kidneys Liver Lungs Inhalation/whole-bdy/Chronic

Animal Group/ Terminal No/sex Subgroup	Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6831E407/M	1/1	403.2	100.000	35.011	63.570	144.485	690.206	85.263
6831E413/M	1/1	379.5	100.000	13.377	52.875	121.903	679.651	86.057
6831E415/M	1/1	395.5	100.000	24.844	52.854	141.055	1078.513	106.475
6831E418/M	1/1	398.8	100.000	28.967	58.487	141.006	652.860	85.932
6831E422/M	1/1	384.3	100.000	35.229	54.072	138.458	637.880	82.988
6831E435/M	1/1	355.1	100.000	38.107	63.315	160.520	833.006	85.091
6831E436/M	1/1	393.1	100.000	16.650	56.134	141.967	736.904	79.796
6831E437/M	1/1	398.3	100.000	45.915	57.418	127.606	575.352	81.455
6831E440/M	1/1	396.8	100.000	17.845	58.424	136.213	670.669	85.857
6831E442/M	1/1	383.6	100.000	23.648	51.795	159.837	1457.492	119.914
6831E443/M	1/1	404.7	100.000	21.971	55.865	134.423	628.365	80.192
6831E446/M	1/1	352.3	100.000	23.160	60.550	131.551	784.495	120.020
6831E448/M	1/1	396.0	100.000	24.241	49.951	129.187	626.543	86.729
6831E449/M	1/1	418.7	100.000	16.972	60.596	130.092	685.321	93.578
Standard deviation:		390.0	100.000	26.138	56.993	138.450	766.947	91.382
Number of observ. :		18.2	0.000	9.394	4.133	11.172	234.397	13.819
		(14)	(14)	(14)	(14)	(14)	(14)	(14)
6833F502/M	2/1	384.3	100.000	16.894	63.294	131.953	633.694	85.082
6833F505/M	2/1	400.1	100.000	19.560	61.381	147.724	770.285	96.148
6833F508/M	2/1	387.3	100.000	29.952	60.725	141.498	655.990	104.444
6833F511/M	2/1	411.5	100.000	18.487	61.811	135.808	667.274	93.604
6833F513/M	2/1	280.5	100.000	17.318	51.163	126.571	588.669	148.046
6833F516/M	2/1	377.9	100.000	20.742	52.855	126.647	859.297	124.597
6833F519/M	2/1	416.2	100.000	20.774	65.043	151.958	629.847	94.031
6833F521/M	2/1	335.6	100.000	18.762	61.111	128.314	930.458	188.596
6833F523/M	2/1	408.3	100.000	23.055	52.537	133.253	611.165	105.462
6833F525/M	2/1	393.6	100.000	17.597	57.177	160.658	840.439	118.979
6833F526/M	2/1	362.5	100.000	25.429	55.904	194.023	879.079	122.636
6833F535/M	2/1	409.1	100.000	18.511	57.854	151.426	631.320	109.715
6833F536/M	2/1	340.7	100.000	26.842	54.593	126.077	551.292	78.947
6833F542/M	2/1	365.4	100.000	23.570	56.755	132.249	638.955	89.398
6833F547/M	2/1	366.3	100.000	24.235	62.318	145.108	656.197	87.356
6833F550/M	2/1	368.4	100.000	16.367	52.647	235.794	917.484	89.995
Standard deviation:		375.5	100.000	21.131	57.948	148.066	716.340	108.565
Number of observ. :		35.2	0.000	3.984	4.391	29.120	127.367	27.970
		(16)	(16)	(16)	(16)	(16)	(16)	(16)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Research Institute

Summary Statistics for % Organ to Brain Weight

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Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6835G601/M	3/1	382.8	100.000	19.114	47.761	130.814	600.915	89.504
6835G602/M	3/1	368.3	100.000	16.810	57.143	147.429	690.857	100.000
6835G603/M	3/1	375.0	100.000	16.321	51.824	140.878	646.351	92.604
6835G605/M	3/1	354.7	100.000	17.868	60.464	148.963	709.279	141.066
6835G607/M	3/1	372.0	100.000	18.310	55.172	148.664	725.206	82.030
6835G609/M	3/1	394.9	100.000	18.362	57.662	141.371	650.759	90.152
6835G610/M	3/1	368.2	100.000	15.208	52.550	127.000	565.466	94.057
6835G613/M	3/1	374.6	100.000	17.633	57.343	127.923	615.459	92.222
6835G614/M	3/1	389.1	100.000	28.278	69.665	147.751	688.325	94.450
6835G615/M	3/1	349.7	100.000	18.756	53.397	154.019	803.062	153.732
6835G617/M	3/1	359.5	100.000	20.463	57.717	156.963	662.092	85.721
6835G621/M	3/1	350.0	100.000	18.948	51.291	127.082	680.662	84.705
6835G628/M	3/1	378.2	100.000	20.166	63.730	137.004	660.793	96.182
6835G630/M	3/1	366.6	100.000	14.513	52.797	136.162	660.849	97.059
6835G634/M	3/1	396.2	100.000	25.565	62.288	160.122	758.427	95.198
6835G638/M	3/1	392.6	100.000	23.326	71.897	147.728	771.382	116.862
6835G639/M	3/1	383.2	100.000	20.050	64.020	142.928	699.007	130.471
6835G647/M	3/1	401.1	100.000	22.582	57.599	134.254	726.918	87.994
6835G648/M	3/1	268.6	100.000	28.686	50.275	169.665	668.816	121.289
6835G649/M	3/1	349.5	100.000	20.378	54.792	131.026	680.155	85.818
Standard deviation:		368.7	100.000	20.067%	57.469	142.887	683.239	101.556
Number of observ. :		28.5	0.000	3.899	6.335	11.804	57.029	20.173
		(20)	(20)	(20)	(20)	(20)	(20)	(20)
6837H702/M	4/1	382.2	100.000	20.362	55.186	146.289	679.305	94.006
6837H704/M	4/1	397.1	100.000	26.060	58.092	135.742	675.626	82.081
6837H705/M	4/1	399.2	100.000	20.904	56.437	170.697	860.268	169.312
6837H706/M	4/1	356.7	100.000	26.972	57.487	151.110	697.307	91.450
6837H708/M	4/1	346.6	100.000	15.870	53.611	153.815	1133.164	120.244
6837H714/M	4/1	335.0	100.000	22.244	47.933	146.014	697.441	82.037
6837H717/M	4/1	371.8	100.000	20.162	59.625	174.012	634.347	96.505
6837H722/M	4/1	335.5	100.000	18.901	48.505	142.237	1051.061	158.679
6837H724/M	4/1	351.4	100.000	17.964	59.615	187.289	751.501	127.111
6837H725/M	4/1	271.3	100.000	22.284	52.314	154.779	880.885	137.072
6837H726/M	4/1	376.6	100.000	17.080	54.939	143.163	737.908	90.462
6837H728/M	4/1	348.4	100.000	15.217	53.994	130.334	707.836	84.125
6837H729/M	4/1	355.9	100.000	16.458	55.390	126.083	656.737	92.493
6837H735/M	4/1	357.6	100.000	25.570	53.518	137.458	664.386	86.075
6837H736/M	4/1	371.5	100.000	29.891	61.462	160.326	785.672	96.146

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary Statistics for % Organ to Brain Weight  
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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6837H739/M	4/1	100.000	26.213	57.031	143.900	637.286	87.604
6837H741/M	4/1	100.000	19.000	55.650	137.200	732.050	95.400
6837H747/M	4/1	100.000	20.434	54.507	154.460	759.226	81.454
6837H749/M	4/1	100.000	14.878	53.268	127.902	579.122	92.146
Mean:		100.000	20.867	55.188	148.569%	753.744	103.390
Standard deviation:		0.000	4.369	3.448	16.102	140.921	26.354
Number of observ. :		(19)	(19)	(19)	(19)	(19)	(19)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Research Institute

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	M a l e A n i m a l s
6831E407/M	403.2	54.828	178.719
6831E413/M	379.5	84.880	268.818
6831E415/M	395.5	217.746	686.187
6831E418/M	398.8	107.011	224.539
6831E422/M	384.3	108.482	199.229
6831E435/M	355.1	79.647	135.360
6831E436/M	393.1	81.159	234.567
6831E437/M	398.3	61.455	137.230
6831E440/M	396.8	51.068	98.291
6831E442/M	383.6	365.869	253.279
6831E443/M	404.7	79.856	234.663
6831E446/M	352.3	228.754	129.588
6831E448/M	396.0	116.993	261.753
6831E449/M	418.7	83.028	408.624
M e a n:	390.0	122.912	246.489
Standard deviation:	18.2	88.492	148.817
Number of observ. :	(14)	(14)	(14)
6833F502/M	384.3	87.247	321.318
6833F505/M	400.1	91.996	444.522
6833F508/M	387.3	86.135	288.406
6833F511/M	411.5	80.252	329.318
6833F513/M	280.5	267.244	77.932
6833F516/M	377.9	295.266	321.669
6833F519/M	416.2	94.651	247.039
6833F521/M	335.6	1021.832	156.530
6833F523/M	408.3	146.786	253.697
6833F525/M	393.6	185.312	208.441
6833F526/M	362.5	240.911	205.781
6833F535/M	409.1	209.908	257.032
6833F536/M	340.7	45.742	205.837
6833F542/M	365.4	91.963	229.043
6833F547/M	366.3	60.612	191.721
6833F550/M	368.4	100.971	430.257
M e a n:	375.5	194.177	260.534
Standard deviation:	35.2	233.918	94.668
Number of observ. :	(16)	(16)	(16)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
\*(§) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Brain Weight  
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Rat/F344/N Animal Group/ Terminal Testes  
No/sex Subgroup Body wt. (g) Splenee

6835G601/M	3/1	382.8	76.986	490.467
6835G602/M	3/1	368.3	114.857	437.143
6835G603/M	3/1	375.0	91.026	138.856
6835G605/M	3/1	354.7	446.150	151.185
6835G607/M	3/1	372.0	61.680	272.754
6835G609/M	3/1	394.9	97.285	414.588
6835G610/M	3/1	368.2	100.608	440.103
6835G613/M	3/1	374.6	77.923	370.821
6835G614/M	3/1	389.1	73.828	347.895
6835G615/M	3/1	349.7	510.431	173.732
6835G617/M	3/1	359.5	122.373	109.754
6835G621/M	3/1	350.0	89.235	371.213
6835G628/M	3/1	378.2	63.485	321.047
6835G630/M	3/1	366.6	131.967	198.746
6835G634/M	3/1	396.2	96.846	207.957
6835G638/M	3/1	392.6	195.785	299.672
6835G639/M	3/1	383.2	140.397	291.414
6835G647/M	3/1	401.1	66.556	339.495
6835G648/M	3/1	268.6	151.124	188.456
6835G649/M	3/1	349.5	186.883	193.369
Standard deviation:		368.7	144.771	287.933
Number of observ. :		28.5	120.685	113.072
		(20)	(20)	(20)
6837H702/M	4/1	382.2	98.668	431.018
6837H704/M	4/1	397.1	107.852	193.208
6837H705/M	4/1	399.2	388.233	207.522
6837H706/M	4/1	356.7	66.651	126.594
6837H708/M	4/1	346.6	694.710	407.681
6837H714/M	4/1	335.0	44.980	406.693
6837H717/M	4/1	371.8	94.630	322.442
6837H722/M	4/1	335.5	944.986	93.877
6837H724/M	4/1	351.4	110.131	223.311
6837H725/M	4/1	271.3	1014.839	102.163
6837H726/M	4/1	376.6	74.112	527.007
6837H728/M	4/1	348.4	69.060	460.769
6837H729/M	4/1	355.9	191.867	319.779
6837H735/M	4/1	357.6	81.951	342.164
6837H736/M	4/1	371.5	37.352	363.785

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
%(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight  
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Scheduled Sacrifices FS  
Study start date: 23-May-01

Rat/F344/N

Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6837H739/M 4/1	371.6	68.839	330.671
6837H741/M 4/1	361.3	195.000	381.150
6837H747/M 4/1	365.8	84.379	311.892
6837H749/M 4/1	328.0	79.707	318.878
M e a n:			
Standard deviation:	28.4	234.102	308.979
Number of observ. :	(19)	305.078	122.086
		(19)	(19)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6832E451/F	290.9	100.000	55.016	103.095	550.694	77.481	4.909
6832E452/F	265.5	100.000	47.996	101.002	461.551	67.300	6.857
6832E456/F	272.8	100.000	51.016	100.000	513.619	75.069	4.778
6832E458/F	257.4	100.000	46.986	93.219	463.886	64.909	5.920
6832E460/F	277.6	100.000	49.549	97.716	514.923	71.907	4.992
6832E461/F	300.6	100.000	58.056	103.683	540.258	67.928	4.962
6832E462/F	304.3	100.000	44.543	108.982	644.282	99.582	5.431
6832E463/F	277.1	100.000	47.797	97.387	540.779	95.953	4.764
6832E464/F	217.4	100.000	51.173	98.691	361.702	110.475	3.819
6832E467/F	301.9	100.000	47.677	100.211	492.344	75.396	6.072
6832E472/F	165.8	100.000	50.458	196.850	375.773	71.592	4.983
6832E475/F	260.0	100.000	41.735	92.094	409.343	67.864	5.801
6832E478/F	263.4	100.000	42.141	98.433	449.295	67.467	5.274
6832E483/F	271.8	100.000	44.348	93.294	478.691	67.658	6.544
6832E486/F	265.4	100.000	45.856	100.377	465.070	71.313	5.274
6832E489/F	263.9	100.000	44.136	95.165	436.728	62.449	4.835
6832E490/F	223.6	100.000	48.736	95.416	624.658	155.479	3.741
6832E493/F	230.8	100.000	50.925	103.032	517.832	151.490	1.799
6832E495/F	301.6	100.000	53.586	105.152	496.566	75.808	27.727
6832E497/F	269.1	100.000	50.193	96.080	538.874	80.508	5.135
6832E498/F	254.1	100.000	43.964	89.638	365.241	61.720	5.332
6832E500/F	303.6	100.000	54.947	104.895	489.211	74.368	5.526
Standard deviation:	265.4	100.000	48.674	103.382	487.787	82.442	6.113
Number of observ. :	33.3	0.000	4.349	21.414	73.459	25.995	4.937
	(22)	(22)	(22)	(22)	(22)	(22)	(22)
6834F551/F	280.6	100.000	43.223	105.283	568.890	75.827	5.283
6834F553/F	278.5	100.000	45.876	102.165	458.144	69.381	5.361
6834F554/F	281.2	100.000	47.491	103.508	494.873	77.658	5.720
6834F555/F	297.4	100.000	48.258	102.587	525.449	75.554	7.814
6834F557/F	264.6	100.000	50.709	101.837	427.717	68.609	7.139
6834F558/F	263.2	100.000	50.355	106.056	555.156	66.830	5.837
6834F559/F	245.3	100.000	48.847	96.783	422.359	66.649	5.737
6834F560/F	283.1	100.000	46.154	104.543	441.817	68.973	4.956
6834F561/F	277.0	100.000	50.331	110.254	500.000	73.980	6.340
6834F563/F	288.7	100.000	55.955	113.144	569.689	67.543	7.135
6834F564/F	221.5	100.000	43.803	109.086	432.698	66.910	6.562
6834F569/F	312.4	100.000	50.941	106.067	575.314	68.776	6.067

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Brain Weight  
Study number: FY01013F  
Scheduled Sacrifices FS  
Study start date: 30-May-01

Lovelace Respiratory  
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Rat/F344/N Animal Group/ Subgroup Body wt. (g) Terminal Adrenal glands Brain Heart Kidneys Liver Lungs Ovaries Inhalation/whole-bdy/Chronic

Animal Group/ Subgroup	Body wt. (g)	Terminal	Adrenal glands	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6834F570/F	2/1	268.6	3.119	100.000	40.696	95.322	485.603	66.580	6.341
6834F573/F	2/1	258.5	3.299	100.000	46.729	98.681	447.554	68.389	3.793
6834F574/F	2/1	265.2	3.412	100.000	46.615	102.862	461.750	71.491	6.109
6834F575/F	2/1	309.2	3.502	100.000	45.897	107.632	485.886	70.570	5.593
6834F579/F	2/1	299.6	3.713	100.000	52.981	115.167	644.195	87.866	5.858
6834F580/F	2/1	296.3	3.381	100.000	47.491	103.751	473.112	64.131	5.917
6834F583/F	2/1	276.2	2.921	100.000	52.321	97.966	447.105	75.796	7.407
6834F584/F	2/1	258.5	2.599	100.000	44.615	61.485	1225.252	82.175	9.761
6834F585/F	2/1	234.6	3.014	100.000	50.978	94.553	456.795	97.885	5.130
6834F586/F	2/1	286.9	3.929	100.000	44.187	99.516	482.939	71.367	5.544
6834F587/F	2/1	282.6	3.227	100.000	50.286	101.562	457.887	68.662	6.143
6834F588/F	2/1	267.6	2.822	100.000	57.613	103.880	509.112	79.953	7.407
6834F591/F	2/1	256.1	3.251	100.000	47.037	100.787	449.712	71.159	5.716
6834F592/F	2/1	274.7	3.050	100.000	48.154	99.893	431.728	73.141	5.778
6834F596/F	2/1	262.2	3.491	100.000	44.576	101.450	600.591	68.260	23.308
6834F597/F	2/1	280.2	3.499	100.000	44.698	97.667	463.574	72.057	7.052
6834F598/F	2/1	252.7	3.071	100.000	43.588	102.802	458.459	66.433	4.741
6834F600/F	2/1	280.6	3.237	100.000	40.493	95.272	512.025	82.374	6.783
6834F600/F	2/1	273.5	3.340	100.000	47.697	101.385	515.513	72.833	6.744
Standard deviation:		20.4	0.388	0.000	4.042	9.040	145.286	7.328	3.318
Number of observ. :		(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
6836G651/F	3/1	262.8	3.421	100.000	46.947	109.474	480.053	69.211	4.211
6836G652/F	3/1	277.7	3.491	100.000	43.095	100.886	516.936	72.486	6.514
6836G654/F	3/1	238.3	3.550	100.000	46.696	112.288	544.675	65.101	3.332
6836G655/F	3/1	259.9	3.930	100.000	44.981	111.365	551.514	74.243	4.036
6836G656/F	3/1	277.7	3.391	100.000	45.694	105.059	464.047	67.546	4.467
6836G657/F	3/1	263.5	3.208	100.000	49.538	105.003	463.458	67.809	6.090
6836G658/F	3/1	274.9	3.231	100.000	48.676	104.714	479.025	64.407	4.661
6836G660/F	3/1	295.8	4.579	100.000	51.384	112.087	1077.104	92.439	5.005
6836G661/F	3/1	242.0	2.350	100.000	54.754	98.611	479.541	76.496	22.489
6836G662/F	3/1	234.8	3.432	100.000	43.578	91.160	409.256	62.715	4.888
6836G663/F	3/1	258.5	2.749	100.000	45.768	102.372	513.477	70.620	5.283
6836G666/F	3/1	226.0	2.821	100.000	42.476	88.506	404.023	60.867	4.336
6836G667/F	3/1	271.4	3.644	100.000	44.506	96.300	466.483	70.569	6.074
6836G668/F	3/1	212.8	9.287	100.000	44.870	87.203	372.786	58.855	6.857
6836G669/F	3/1	256.3	3.158	100.000	56.621	110.693	582.382	79.723	5.706
6836G670/F	3/1	267.4	3.137	100.000	46.295	113.791	487.345	66.793	4.922
6836G672/F	3/1	283.2	3.568	100.000	51.027	96.649	479.405	64.108	5.730

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight  
Study number: FY01013F  
Scheduled Sacrifices FS

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Rat/F344/N Study start date: 30-May-01 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6836G673/F	3/1	242.1	100.000	48.431	90.043	395.455	71.483	6.115
6836G674/F	3/1	287.6	100.000	46.243	106.674	513.295	68.313	4.834
6836G675/F	3/1	257.6	100.000	52.540	105.132	595.344	105.608	6.455
6836G677/F	3/1	268.4	100.000	40.970	100.619	460.681	65.428	5.315
6836G681/F	3/1	272.3	100.000	57.032	101.713	439.024	65.439	6.072
6836G684/F	3/1	287.6	100.000	44.085	97.017	461.325	64.206	6.471
6836G686/F	3/1	231.0	100.000	51.221	122.805	551.117	138.961	5.299
6836G690/F	3/1	241.1	100.000	45.611	99.569	438.288	66.236	5.223
6836G692/F	3/1	236.8	100.000	45.858	101.426	486.835	65.387	6.034
6836G694/F	3/1	244.1	100.000	45.229	94.098	464.203	69.829	4.137
6836G697/F	3/1	255.8	100.000	45.494	98.046	505.103	79.262	3.800
6836G700/F	3/1	252.0	100.000	45.736	109.180	460.891	72.732	7.333
6836G700/F	3/1	209.6	100.000	39.934	86.433	360.339	61.597	54.814
6836G700/F	3/1	256.3	100.000	47.176	101.964	496.780	72.616	7.550
Mean:		21.9	0.000	4.232	8.703	123.142	15.686	9.509
Standard deviation:		(30)	(30)	(30)	(30)	(30)	(30)	(30)
Number of observ. :								
6838H754/F	4/1	267.9	100.000	58.231	104.290	501.984	70.563	6.649
6838H755/F	4/1	229.6	100.000	43.393	132.475	431.747	62.038	5.375
6838H756/F	4/1	250.7	100.000	50.194	100.333	448.419	63.006	4.936
6838H758/F	4/1	247.8	100.000	48.576	116.282	473.563	69.694	6.663
6838H759/F	4/1	230.5	100.000	44.516	104.548	478.117	75.602	9.310
6838H760/F	4/1	245.1	100.000	48.223	100.371	473.263	70.716	5.517
6838H761/F	4/1	244.4	100.000	46.663	101.695	504.767	72.034	6.250
6838H762/F	4/1	237.7	100.000	48.879	104.975	472.717	71.296	4.265
6838H765/F	4/1	259.5	100.000	53.801	105.597	486.167	80.570	4.541
6838H767/F	4/1	251.5	100.000	41.944	100.106	456.101	74.115	4.754
6838H768/F	4/1	242.4	100.000	49.866	101.930	542.574	70.563	4.879
6838H769/F	4/1	232.5	100.000	42.175	92.573	419.576	63.183	5.199
6838H771/F	4/1	217.7	100.000	40.825	88.366	402.010	62.295	5.870
6838H773/F	4/1	256.8	100.000	42.616	103.106	510.300	67.302	5.559
6838H776/F	4/1	261.4	100.000	50.755	108.798	482.093	66.476	4.581
6838H777/F	4/1	242.5	100.000	52.230	108.744	472.477	68.016	6.279
6838H778/F	4/1	218.1	100.000	55.715	101.380	456.046	130.536	5.964
6838H779/F	4/1	265.1	100.000	48.802	109.858	461.220	69.771	5.610
6838H780/F	4/1	236.3	100.000	47.713	101.011	461.649	81.702	8.298
6838H781/F	4/1	244.3	100.000	49.734	100.692	464.324	68.158	5.857
6838H782/F	4/1	240.3	100.000	51.547	101.768	477.403	63.315	6.354
6838H784/F	4/1	202.7	100.000	43.101	87.287	265.478	65.323	4.651

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory  
Research Institute

Summary Statistics for % Organ to Brain Weight

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Rat/F344/N	Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Inhalation/whole-bdy/Chronic					
				Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6838H787/F	4/1	266.0	3.856	100.000	42.957	117.729	611.462	92.501	6.213
6838H788/F	4/1	244.1	2.974	100.000	42.985	104.321	515.376	65.600	6.004
6838H789/F	4/1	247.7	2.905	100.000	49.637	103.579	441.805	70.851	7.676
6838H790/F	4/1	238.2	1.397	100.000	56.368	100.322	465.395	70.983	5.696
6838H791/F	4/1	265.6	3.011	100.000	52.139	113.154	626.836	115.055	3.962
6838H793/F	4/1	231.8	2.776	100.000	46.434	106.478	652.096	91.072	4.899
6838H794/F	4/1	258.7	3.575	100.000	45.666	106.446	466.143	65.710	6.013
6838H796/F	4/1	240.6	2.963	100.000	45.690	105.496	436.261	67.511	5.334
6838H798/F	4/1	256.0	3.035	100.000	43.024	102.236	487.327	63.685	5.218
6838H799/F	4/1	215.8	3.169	100.000	41.192	86.144	412.460	64.071	4.028
6838H800/F	4/1	247.9	3.384	100.000	45.688	116.812	612.336	88.210	5.131
		243.6\$	3.133\$	100.000	47.615	104.209	486.954	73.986	5.683
Standard deviation:		15.7	0.483	0.000	4.625	8.959	77.866	14.988	1.154
Number of observ. :		(33)	(33)	(33)	(33)	(33)	(33)	(33)	(33)

M e a n:  
Standard deviation:  
Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
%(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Brain Weight  
 Study number: FY01013F  
 Scheduled Sacrifices FS  
 Study start date: 30-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ Subgroup Body wt. (g) Terminal Uterus Female Animals

Animal Group/ Subgroup	Body wt. (g)	Terminal	Spleen	Female Animals
6832E451/F	290.9	1/1	47.812	31.590
6832E452/F	265.5	1/1	52.004	32.859
6832E456/F	272.8	1/1	136.079	53.981
6832E458/F	257.4	1/1	31.862	34.769
6832E460/F	277.6	1/1	69.995	212.268
6832E461/F	300.6	1/1	39.079	37.238
6832E462/F	304.3	1/1	93.420	39.373
6832E463/F	277.1	1/1	222.541	37.500
6832E464/F	217.4	1/1	232.624	33.224
6832E467/F	301.9	1/1	39.282	30.253
6832E472/F	165.8	1/1	31.615	42.153
6832E475/F	260.0	1/1	30.801	26.129
6832E478/F	263.4	1/1	34.987	42.245
6832E483/F	271.8	1/1	32.504	32.829
6832E486/F	265.4	1/1	38.805	29.817
6832E489/F	263.9	1/1	27.572	41.718
6832E490/F	223.6	1/1	223.709	31.349
6832E493/F	230.8	1/1	797.431	26.567
6832E495/F	301.6	1/1	33.586	49.242
6832E497/F	269.1	1/1	110.271	46.494
6832E498/F	254.1	1/1	25.151	41.398
6832E500/F	303.6	1/1	86.053	27.737
Mean	265.4		110.781	44.579
Standard deviation:	33.3		167.421	38.179
Number of observ. :	(22)		(22)	(22)
6834F551/F	280.6	2/1	71.718	36.179
6834F553/F	278.5	2/1	46.340	29.691
6834F554/F	281.2	2/1	27.901	28.926
6834F555/F	297.4	2/1	45.459	35.903
6834F557/F	264.6	2/1	31.076	68.556
6834F558/F	263.2	2/1	43.372	39.607
6834F559/F	245.3	2/1	43.271	31.689
6834F560/F	283.1	2/1	32.731	31.853
6834F561/F	277.0	2/1	44.928	50.937
6834F563/F	288.7	2/1	34.818	70.279
6834F564/F	221.5	2/1	32.081	27.314
6834F569/F	312.4	2/1	40.324	41.893

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Brain Weight  
 Study number: FY01013F  
 Scheduled Sacrifices FS  
 Rat/F344/N Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6834F570/F	268.6	112.058	36.850
6834F573/F	258.5	34.415	42.551
6834F574/F	265.2	33.957	54.210
6834F575/F	309.2	53.842	76.320
6834F579/F	299.6	240.220	33.211
6834F580/F	296.3	66.561	38.722
6834F583/F	276.2	31.768	45.905
6834F584/F	258.5	140.955	46.950
6834F585/F	234.6	77.684	40.719
6834F586/F	286.9	42.142	32.024
6834F587/F	282.6	44.456	32.431
6834F588/F	267.6	40.976	43.798
6834F591/F	256.1	63.293	34.976
6834F592/F	274.7	38.577	30.658
6834F596/F	262.2	39.151	40.064
6834F597/F	280.2	33.457	35.366
6834F598/F	252.7	28.125	45.205
6834F600/F	280.6	106.578	31.860
	Mean:	57.408	41.155
	Standard deviation:	43.752	12.323
	Number of observ. :	(30)	(30)
6836G651/F	262.8	33.947	59.947
6836G652/F	277.7	79.990	32.048
6836G654/F	238.3	46.313	31.841
6836G655/F	259.9	74.615	31.067
6836G656/F	277.7	38.644	46.179
6836G657/F	263.5	33.442	33.714
6836G658/F	274.9	51.006	28.284
6836G660/F	295.8	135.463	39.084
6836G661/F	242.0	51.015	165.331
6836G662/F	234.8	31.981	38.014
6836G663/F	258.5	37.844	37.682
6836G666/F	226.0	20.533	35.371
6836G667/F	271.4	35.229	71.728
6836G668/F	212.8	18.251	59.125
6836G669/F	256.3	37.119	76.011
6836G670/F	267.4	37.263	44.835
6836G672/F	283.2	62.000	30.757

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Brain Weight  
 Study number: FY01013F  
 Scheduled Sacrifices FS  
 Rat/F344/N Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6836G673/F	242.1	28.680	62.121
6836G674/F	287.6	36.626	46.295
6836G675/F	257.6	179.524	37.407
6836G677/F	268.4	39.112	34.830
6836G681/F	272.3	30.566	47.276
6836G684/F	287.6	41.962	31.395
6836G686/F	231.0	134.390	39.740
6836G689/F	241.1	44.588	49.165
6836G690/F	236.8	34.833	59.133
6836G692/F	244.1	28.020	29.950
6836G694/F	255.8	94.354	39.631
6836G697/F	252.0	34.818	51.548
6836G700/F	209.6	25.328	174.562
	256.3	52.582	52.136
	21.9	37.585	34.443
	(30)	(30)	(30)
M e a n:			
Standard deviation:			
Number of observ. :			
6838H754/F	4/1	30.992	36.139
6838H755/F	4/1	40.705	36.898
6838H756/F	4/1	38.048	32.446
6838H758/F	4/1	40.838	45.943
6838H759/F	4/1	56.822	51.364
6838H760/F	4/1	35.385	38.621
6838H761/F	4/1	116.208	41.578
6838H762/F	4/1	65.555	37.944
6838H765/F	4/1	29.778	51.214
6838H767/F	4/1	222.715	64.448
6838H768/F	4/1	63.753	34.745
6838H769/F	4/1	29.920	106.578
6838H771/F	4/1	25.542	35.061
6838H773/F	4/1	35.858	46.431
6838H776/F	4/1	43.779	36.075
6838H777/F	4/1	46.948	32.629
6838H778/F	4/1	470.348	38.984
6838H779/F	4/1	47.113	30.664
6838H780/F	4/1	156.489	112.819
6838H781/F	4/1	30.671	36.155
6838H782/F	4/1	28.453	32.818
6838H784/F	4/1	22.997	30.904

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight  
 Study number: FY01013F  
 Scheduled Sacrifices FS  
 Study start date: 30-May-01

Rat/F344/N  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6838H787/F	266.0	97.590	48.527
6838H788/F	244.1	35.802	33.614
6838H789/F	247.7	36.203	36.618
6838H790/F	238.2	32.509	39.656
6838H791/F	265.6	654.411	37.824
6838H793/F	231.8	135.384	46.326
6838H794/F	258.7	35.320	51.246
6838H796/F	240.6	37.500	37.716
6838H798/F	256.0	33.546	38.232
6838H799/F	215.8	27.121	28.034
6838H800/F	247.9	180.459	57.260
	243.6\$	90.447	44.409
Standard deviation:	15.7	133.066	18.723
Number of observ. :	(33)	(33)	(33)
M e a n:			

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

K-4 Absolute Organ Weights, Male and Female, Euthanized Rats

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Summary statistics for absolute organ weights (g)  
 Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Heart

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6831E401/M	1/1	350.8	0.067	M a l e 2.189	A n i m a l s 0.638	2.753	18.056	3.101
6831E402/M	1/1	375.6	0.054	NT	1.014	2.751	13.564	3.020
6831E403/M	1/1	276.1	0.064	2.003	0.423	2.426	10.792	3.106
6831E404/M	1/1	494.2	0.071	2.094	0.881	2.824	15.373	2.889
6831E405/M	1/1	311.3	0.056	2.075	0.357	2.595	10.311	3.020
6831E406/M	1/1	224.4	0.095	1.974	0.731	1.930	4.063	1.383
6831E408/M	1/1	312.1	0.051	2.105	0.816	2.157	7.247	1.155
6831E409/M	1/1	300.4	0.069	2.094	0.554	2.464	11.069	2.218
6831E410/M	1/1	369.2	0.118	2.087	0.567	3.031	19.129	3.000
6831E411/M	1/1	339.4	0.064	2.078	0.440	2.920	19.761	3.954
6831E412/M	1/1	331.9	0.077	1.994	0.350	2.031	8.317	1.352
6831E414/M	1/1	255.3	0.109	2.105	0.536	2.465	7.873	3.661
6831E416/M	1/1	385.4	0.079	2.057	0.507	2.962	17.859	4.139
6831E417/M	1/1	372.5	0.072	2.055	0.902	2.590	10.233	1.764
6831E419/M	1/1	359.2	0.066	2.189	0.315	3.114	15.481	4.936
6831E420/M	1/1	355.4	0.065	1.983	0.472	2.720	12.879	2.606
6831E421/M	1/1	385.2	0.064	2.098	0.797	3.013	12.585	4.092
6831E423/M	1/1	381.1	0.061	2.135	0.834	2.721	13.786	3.266
6831E424/M	1/1	365.0	0.106	2.132	0.547	2.756	14.755	3.113
6831E426/M	1/1	282.1	0.077	2.076	0.413	2.563	9.207	3.273
6831E427/M	1/1	294.9	0.072	2.110	0.468	2.745	16.057	5.844
6831E428/M	1/1	355.2	0.071	2.023	0.562	2.457	10.804	2.004
6831E429/M	1/1	352.3	0.077	2.159	0.471	2.836	15.320	3.052
6831E430/M	1/1	327.7	0.074	2.083	0.466	2.340	7.638	2.530
6831E431/M	1/1	346.8	0.056	2.255	0.931	2.429	8.002	1.433
6831E432/M	1/1	379.0	0.047	2.047	0.505	2.869	17.505	3.255
6831E433/M	1/1	311.2	0.061	2.011	0.569	2.400	9.705	1.556
6831E434/M	1/1	317.5	0.093	2.020	0.594	3.216	12.553	1.681
6831E438/M	1/1	331.8	0.074	2.135	0.500	3.117	18.231	3.183
6831E439/M	1/1	417.3	0.029	1.965	1.138	2.513	13.050	1.473
6831E441/M	1/1	366.9	0.064	2.177	0.869	2.953	11.189	3.081
6831E444/M	1/1	331.1	0.085	2.011	0.574	2.575	16.132	3.394
6831E445/M	1/1	369.9	0.061	2.067	0.452	2.811	12.286	3.499
6831E447/M	1/1	353.4	0.062	2.044	0.521	2.587	19.636	3.600
6831E447/M	1/1	440.7	0.052	2.011	1.033	2.759	15.438	2.210
6831E450/M	1/1	346.4	0.070	2.078	0.621	2.668	13.025	2.881
Standard deviation:		50.7	0.018	0.068	0.215	0.299	3.997	1.053
Number of observ. :		(35)	(35)	(34)	(35)	(35)	(35)	(35)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Lovelace Respiratory  
Research Institute

Study number: FY01013M

Unscheduled Sacrifices U2

Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6833F504/M	2/1	344.8	0.408	2.188	0.369	1.283	20.773	3.603
6833F506/M	2/1	299.2	0.050	2.124	0.358	1.267	13.412	3.670
6833F507/M	2/1	367.4	0.067	2.048	0.615	1.392	16.133	3.189
6833F509/M	2/1	503.4	0.100	2.054	1.178	1.334	10.207	1.709
6833F510/M	2/1	314.7	0.079	2.057	0.433	1.220	8.993	1.614
6833F512/M	2/1	306.8	0.055	2.079	0.567	1.393	10.773	3.015
6833F514/M	2/1	395.1	0.040	1.986	0.810	1.134	13.112	1.860
6833F515/M	2/1	352.0	0.069	2.111	0.706	1.064	14.976	2.789
6833F517/M	2/1	408.0	0.047	2.142	0.735	1.344	18.906	3.348
6833F518/M	2/1	407.4	0.083	2.155	0.421	1.410	16.277	2.784
6833F520/M	2/1	324.1	0.112	2.056	0.518	1.441	16.535	2.587
6833F522/M	2/1	377.2	0.082	2.086	0.428	1.299	17.617	2.854
6833F527/M	2/1	377.5	0.072	1.972	0.903	1.193	15.175	2.008
6833F528/M	2/1	359.8	0.044	1.911	0.616	1.159	9.672	2.735
6833F529/M	2/1	444.5	0.066	2.055	0.909	1.257	12.470	1.640
6833F530/M	2/1	329.6	0.055	2.077	0.593	1.306	11.588	2.180
6833F531/M	2/1	355.2	0.082	2.117	0.621	1.323	16.010	1.685
6833F532/M	2/1	314.7	0.061	2.076	0.870	1.235	10.398	6.447
6833F533/M	2/1	388.3	0.054	2.036	0.820	1.861	23.559	2.372
6833F534/M	2/1	247.0	0.047	1.993	0.431	1.332	11.087	2.822
6833F537/M	2/1	338.3	0.062	2.130	0.432	0.967	10.246	4.123
6833F538/M	2/1	369.0	0.066	2.087	0.514	1.345	9.488	3.811
6833F539/M	2/1	259.2	0.093	2.088	0.445	1.041	5.004	1.475
6833F540/M	2/1	300.4	0.066	2.155	1.029	1.285	9.134	2.912
6833F543/M	2/1	325.3	0.061	1.990	0.338	0.924	14.003	7.326
6833F544/M	2/1	352.7	0.115	1.957	0.432	1.957	19.204	2.962
6833F545/M	2/1	367.1	0.105	2.015	0.716	1.555	20.436	3.346
6833F546/M	2/1	350.7	0.077	1.994	0.341	1.168	14.791	2.855
6833F548/M	2/1	472.7	0.103	2.231	0.500	1.443	20.929	2.750
Mean:		354.6	0.083	2.068	0.609	1.308	14.169	2.982
Standard deviation:		56.9	0.066	0.073	0.222	0.220	4.439	1.294
Number of observ. :		(29)	(29)	(29)	(29)	(29)	(29)	(29)
6835G604/M	3/1	334.8	0.086	2.045	0.383	1.183	14.831	12.192
6835G606/M	3/1	411.5	0.077	2.164	0.657	1.414	17.916	3.296
6835G608/M	3/1	319.0	0.065	2.109	0.339	1.925	14.188	3.425
6835G611/M	3/1	290.7	0.096	2.132	0.671	1.229	9.697	2.837
6835G612/M	3/1	317.1	0.097	2.133	0.379	1.240	13.715	3.837

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute

Summary statistics for absolute organ weights (g)

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Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Study start date: 23-May-01

Inhalation/whole-body/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6835G616/M	3/1	350.1	0.079	2.093	0.381	1.426	18.545	2.912
6835G618/M	3/1	333.2	0.064	2.105	0.519	1.405	15.624	3.645
6835G619/M	3/1	321.5	0.106	2.126	0.399	1.376	14.882	2.455
6835G620/M	3/1	334.6	0.060	2.102	0.326	1.374	18.077	3.961
6835G622/M	3/1	312.8	0.101	2.094	0.343	1.206	13.806	3.501
6835G623/M	3/1	381.3	0.056	1.963	0.932	0.996	10.735	1.753
6835G624/M	3/1	310.6	0.054	2.011	0.376	1.100	11.563	2.475
6835G626/M	3/1	347.1	0.054	2.126	0.416	1.218	15.272	2.513
6835G629/M	3/1	316.6	0.097	2.117	0.498	1.191	12.467	2.638
6835G631/M	3/1	362.6	0.079	2.103	0.395	1.502	18.217	3.681
6835G632/M	3/1	323.8	0.062	2.065	0.366	1.207	11.730	2.627
6835G633/M	3/1	420.2	0.064	2.032	0.450	1.102	16.475	1.907
6835G635/M	3/1	307.0	0.097	2.150	0.389	1.368	12.549	1.955
6835G637/M	3/1	326.4	0.068	1.963	0.420	1.020	13.268	3.350
6835G640/M	3/1	291.4	0.070	2.026	0.515	1.137	13.620	3.804
6835G641/M	3/1	349.9	0.078	2.088	0.459	1.381	17.440	2.426
6835G642/M	3/1	334.1	0.085	2.077	0.503	1.493	19.408	3.470
6835G643/M	3/1	407.3	0.070	2.182	0.661	1.126	14.897	1.639
6835G644/M	3/1	353.4	0.062	2.064	0.768	1.358	14.950	2.947
6835G645/M	3/1	323.0	0.079	2.079	0.539	1.212	11.354	1.599
6835G646/M	3/1	356.0	0.228	2.023	0.389	1.325	20.089	3.383
6835G650/M	3/1	341.9	0.094	1.979	0.848	1.291	11.282	1.549
Mean:		339.9	0.082	2.080	0.493*	1.289	14.689	3.177
Standard deviation:		33.5	0.033	0.058	0.162	0.187	2.837	1.951
Number of observ. :		(27)	(27)	(27)	(27)	(27)	(27)	(27)
6837H701/M	4/1	253.6	0.099	1.936	0.319	1.277	12.811	2.753
6837H703/M	4/1	435.2	0.089	2.047	0.634	1.172	16.387	1.810
6837H707/M	4/1	353.8	0.176	2.044	0.464	1.667	16.235	2.636
6837H709/M	4/1	362.3	0.049	2.046	0.430	1.249	21.619	2.819
6837H710/M	4/1	305.8	0.070	2.057	0.511	1.184	10.710	2.318
6837H711/M	4/1	358.8	0.104	2.001	0.690	1.232	13.089	1.775
6837H712/M	4/1	348.6	0.058	2.063	0.627	0.913	12.507	1.666
6837H713/M	4/1	301.4	0.119	1.993	0.587	1.245	16.514	2.528
6837H715/M	4/1	365.1	0.074	2.149	0.408	1.340	22.555	3.104
6837H716/M	4/1	411.5	0.071	2.070	1.033	1.004	14.766	1.809
6837H719/M	4/1	365.4	0.050	1.977	0.784	1.272	15.246	2.630
6837H720/M	4/1	301.7	0.053	2.074	0.331	1.158	14.915	2.507
6837H721/M	4/1	362.5	0.083	2.077	0.425	1.150	13.846	1.613

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Study start date: 23-May-01  
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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6837H723/M	4/1	333.5	0.066	2.025	0.596	2.869	15.792	3.120
6837H727/M	4/1	304.8	0.068	1.962	0.334	2.935	13.028	2.648
6837H730/M	4/1	334.0	0.073	2.111	0.461	2.720	10.924	1.843
6837H731/M	4/1	304.6	0.028	2.045	0.475	2.743	14.176	3.262
6837H733/M	4/1	298.5	0.056	2.048	0.621	2.505	16.073	3.204
6837H734/M	4/1	316.5	0.096	2.031	0.382	3.114	21.333	3.271
6837H737/M	4/1	323.8	0.069	2.024	0.311	2.932	16.198	3.144
6837H738/M	4/1	330.4	0.062	2.052	0.596	2.903	13.475	2.708
6837H740/M	4/1	315.5	0.080	2.193	0.357	2.660	15.411	2.811
6837H742/M	4/1	307.8	0.058	1.978	0.472	2.727	21.298	3.605
6837H743/M	4/1	301.2	0.066	2.094	0.438	3.120	11.742	2.743
6837H744/M	4/1	296.4	0.055	1.943	0.698	2.833	13.204	3.294
6837H745/M	4/1	273.9	0.082	2.029	0.389	2.520	7.694	2.533
6837H746/M	4/1	287.8	0.606	2.016	0.636	2.866	12.264	4.145
6837H748/M	4/1	364.1	0.080	1.997	0.713	3.308	19.882	2.814
6837H750/M	4/1	305.6	0.077	2.046	0.390	3.146	16.136	3.436
Standard deviation:		328.4	0.094	2.039	0.521	3.301%	15.167	2.709
Number of observ. :		39.6	0.102	0.056	0.167	1.457	3.519	0.626
		(29)	(29)	(29)	(29)	(29)	(29)	(29)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes	M a l e A n i m a l s
6831E401/M	1/1	350.8	9.782	3.260
6831E402/M	1/1	375.6	17.452	3.016
6831E403/M	1/1	276.1	15.750	2.903
6831E404/M	1/1	494.2	2.033	4.266
6831E405/M	1/1	311.3	7.921	1.652
6831E406/M	1/1	224.4	0.477	2.313
6831E408/M	1/1	312.1	0.654	3.008
6831E409/M	1/1	300.4	3.669	2.315
6831E410/M	1/1	369.2	20.943	2.546
6831E411/M	1/1	339.4	11.696	1.642
6831E412/M	1/1	331.9	0.602	2.212
6831E414/M	1/1	255.3	0.492	1.971
6831E416/M	1/1	385.4	22.346	2.131
6831E417/M	1/1	372.5	1.489	2.974
6831E419/M	1/1	359.2	11.185	2.085
6831E420/M	1/1	355.4	8.490	4.617
6831E421/M	1/1	385.2	15.749	2.566
6831E423/M	1/1	381.1	13.603	2.651
6831E424/M	1/1	365.0	8.662	2.687
6831E426/M	1/1	282.1	10.465	2.315
6831E427/M	1/1	294.9	9.566	1.005
6831E428/M	1/1	355.2	2.000	2.783
6831E429/M	1/1	352.3	14.355	2.518
6831E430/M	1/1	327.7	0.798	2.355
6831E431/M	1/1	346.8	0.772	3.161
6831E432/M	1/1	379.0	24.221	1.985
6831E433/M	1/1	311.2	1.702	1.985
6831E434/M	1/1	317.5	0.726	4.691
6831E438/M	1/1	331.8	9.366	2.204
6831E439/M	1/1	417.3	0.919	1.246
6831E441/M	1/1	366.9	10.929	3.417
6831E444/M	1/1	331.1	13.234	2.666
6831E445/M	1/1	369.9	13.445	1.908
6831E447/M	1/1	353.4	11.908	3.330
6831E450/M	1/1	440.7	3.734	1.704
6831E450/M	1/1	346.4	8.604	3.036
Standard deviation:		50.7	6.952	2.604
Number of observ. :		(35)	(35)	0.828
				(35)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ Subgroup Body wt. (g) Terminal Testes

No/sex

Spleen

6833F504/M	2/1	344.8	17.111	1.936
6833F506/M	2/1	299.2	15.090	2.374
6833F507/M	2/1	367.4	15.252	2.295
6833F509/M	2/1	503.4	1.672	2.570
6833F510/M	2/1	314.7	1.005	3.036
6833F512/M	2/1	306.8	6.982	1.550
6833F514/M	2/1	395.1	4.743	2.630
6833F515/M	2/1	352.0	9.800	2.188
6833F517/M	2/1	408.0	24.850	3.378
6833F518/M	2/1	407.4	2.709	3.237
6833F520/M	2/1	324.1	4.522	2.717
6833F522/M	2/1	377.2	12.163	2.405
6833F527/M	2/1	357.5	19.662	2.527
6833F528/M	2/1	309.8	8.750	2.183
6833F529/M	2/1	444.5	1.324	4.658
6833F530/M	2/1	329.6	1.585	2.329
6833F531/M	2/1	355.2	0.925	2.040
6833F532/M	2/1	314.7	6.546	2.738
6833F533/M	2/1	388.3	20.713	2.925
6833F534/M	2/1	247.0	1.669	2.056
6833F537/M	2/1	338.3	9.728	1.848
6833F538/M	2/1	369.0	20.739	2.719
6833F539/M	2/1	259.2	0.550	2.667
6833F540/M	2/1	300.4	12.451	2.414
6833F543/M	2/1	325.3	1.195	2.089
6833F544/M	2/1	352.7	19.119	4.019
6833F545/M	2/1	367.1	25.728	2.209
6833F546/M	2/1	350.7	5.966	3.492
6833F548/M	2/1	472.7	5.726	6.463
		354.6	9.596	2.748
Standard deviation:		56.9	7.945	0.972
Number of observ. :		(29)	(29)	(29)
6835G604/M	3/1	334.8	4.439	3.400
6835G606/M	3/1	411.5	11.745	3.463
6835G608/M	3/1	319.0	10.677	5.436
6835G611/M	3/1	290.7	9.603	2.555
6835G612/M	3/1	317.1	10.715	3.569

Mean:

Standard deviation:

Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6835G616/M	3/1 350.1	15.014	2.017
6835G618/M	3/1 333.2	13.403	2.220
6835G619/M	3/1 321.5	6.475	2.828
6835G620/M	3/1 334.6	13.601	1.733
6835G622/M	3/1 312.8	9.584	3.810
6835G623/M	3/1 381.3	1.134	2.795
6835G624/M	3/1 310.6	9.125	2.089
6835G626/M	3/1 347.1	3.818	4.092
6835G629/M	3/1 316.6	13.756	1.591
6835G631/M	3/1 362.6	5.476	3.138
6835G632/M	3/1 323.8	7.594	2.125
6835G633/M	3/1 420.2	3.558	6.831
6835G635/M	3/1 307.0	1.077	NT
6835G637/M	3/1 326.4	4.382	2.427
6835G640/M	3/1 291.4	21.296	2.467
6835G641/M	3/1 349.9	16.627	3.294
6835G642/M	3/1 334.1	7.449	3.708
6835G643/M	3/1 407.3	1.308	5.181
6835G644/M	3/1 353.4	10.510	2.754
6835G645/M	3/1 323.0	0.887	4.991
6835G646/M	3/1 356.0	21.891	2.893
6835G650/M	3/1 341.9	0.995	2.911
6835G650/M	3/1 339.9	8.746	3.243
Standard deviation:	33.5	5.964	1.244
Number of observ. :	(27)	(27)	(26)
6837H701/M	4/1 253.6	1.142	4.186
6837H703/M	4/1 435.2	2.411	2.042
6837H707/M	4/1 353.8	24.826	1.443
6837H709/M	4/1 362.3	16.549	1.939
6837H710/M	4/1 305.8	1.664	4.055
6837H711/M	4/1 358.8	1.350	4.210
6837H712/M	4/1 348.6	1.084	3.025
6837H713/M	4/1 301.4	3.950	1.946
6837H715/M	4/1 365.1	13.526	2.601
6837H716/M	4/1 411.5	1.018	3.598
6837H719/M	4/1 365.4	19.724	2.965
6837H720/M	4/1 301.7	10.114	2.527
6837H721/M	4/1 362.5	1.269	6.211

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Rat/F344/N  
 Study start date: 23-May-01  
 Inhalation/whole-bdy/Chronic

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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6837H723/M	4/1 333.5	15.525	1.658
6837H727/M	4/1 304.8	12.195	2.346
6837H730/M	4/1 334.0	1.369	5.812
6837H731/M	4/1 304.6	5.152	2.346
6837H733/M	4/1 298.5	11.018	1.961
6837H734/M	4/1 316.5	5.461	4.232
6837H737/M	4/1 323.8	15.703	1.346
6837H738/M	4/1 330.4	7.892	2.607
6837H740/M	4/1 315.5	8.076	2.414
6837H742/M	4/1 307.8	15.130	1.685
6837H743/M	4/1 301.2	7.466	4.213
6837H744/M	4/1 296.4	11.692	2.049
6837H745/M	4/1 273.9	0.465	2.934
6837H746/M	4/1 287.8	7.929	1.268
6837H748/M	4/1 364.1	14.579	2.452
6837H750/M	4/1 305.6	9.684	NT
	Mean: 328.4	8.550	2.860
Standard deviation:	39.6	6.573	1.275
Number of observ. :	(29)	(29)	(28)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)  
Study number: FY01013F  
Unscheduled Sacrifices U2  
Study start date: 30-May-01

Lovelace Respiratory  
Research Institute

Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6832E453/F	219.3	0.059	F e m a l e 1.874	0.827	A n i m a l s 1.761	13.580	2.049	0.149
6832E455/F	279.2	0.070	1.969	0.969	1.877	9.411	1.419	0.126
6832E457/F	201.2	0.077	1.949	0.952	1.881	7.826	1.869	0.064
6832E459/F	223.0	0.070	1.931	0.942	1.698	19.564	2.491	0.069
6832E465/F	192.6	0.065	1.859	0.855	1.557	4.828	0.969	0.054
6832E466/F	237.0	0.053	1.911	1.010	1.737	9.505	1.871	0.131
6832E468/F	260.6	0.057	1.977	1.064	1.824	1.378	1.378	0.111
6832E469/F	201.9	0.071	1.832	0.950	2.041	6.956	1.640	0.093
6832E470/F	239.4	0.055	1.913	0.825	1.680	11.924	3.381	0.086
6832E471/F	236.9	0.057	1.866	0.941	1.880	11.599	2.997	0.082
6832E474/F	189.3	0.054	2.018	0.993	1.765	8.193	2.036	0.062
6832E476/F	259.5	0.067	1.903	1.038	2.028	13.141	2.965	0.035
6832E479/F	263.3	0.071	1.949	1.282	1.950	9.869	2.131	0.103
6832E481/F	203.4	0.066	1.854	0.809	1.589	7.212	1.228	0.184
6832E482/F	250.2	0.071	1.974	1.192	2.257	14.427	2.649	0.077
6832E484/F	212.8	0.055	1.912	1.196	2.219	10.267	2.731	0.048
6832E485/F	211.2	0.068	1.813	1.027	1.876	12.211	2.263	0.102
6832E487/F	226.0	0.067	1.930	0.825	1.687	12.808	2.153	0.058
6832E488/F	220.2	0.074	1.839	0.999	1.962	7.663	1.148	0.079
6832E491/F	217.6	0.085	1.993	1.018	2.167	11.452	2.390	0.060
6832E492/F	186.5	0.055	1.831	0.691	1.382	5.019	0.959	0.066
6832E494/F	276.5	0.053	1.899	1.071	1.779	8.133	1.179	0.083
6832E496/F	200.1	0.057	1.839	1.127	1.996	8.842	2.402	0.092
6832E499/F	248.6	0.049	1.819	0.798	1.670	10.709	1.434	0.097
Standard deviation:	227.4	0.064	1.899	0.983	1.844	10.126	1.989	0.088
Number of observ. :	27.6 (24)	0.009 (24)	0.058 (24)	0.146 (24)	0.212 (24)	3.277 (24)	0.685 (24)	0.034 (24)
6834F552/F	229.7	0.067	1.930	1.130	1.933	9.866	2.547	0.066
6834F556/F	225.7	0.085	1.866	1.061	1.720	7.343	1.389	0.037
6834F562/F	238.4	0.054	1.035	0.777	1.838	6.790	1.191	0.095
6834F565/F	268.4	0.056	1.932	0.963	1.846	10.202	1.160	0.137
6834F566/F	226.8	0.085	1.904	0.870	1.786	7.510	1.300	0.104
6834F567/F	282.2	0.078	1.913	1.008	2.171	11.802	1.476	0.138
6834F568/F	203.6	0.070	1.835	0.764	1.454	12.199	1.823	0.555
6834F571/F	211.9	0.060	1.874	1.226	1.906	9.289	2.661	0.058
6834F572/F	256.4	0.051	1.827	0.995	2.014	8.841	1.613	0.125
6834F577/F	248.1	0.094	1.953	0.933	1.941	9.489	2.334	0.097

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013F  
 Unscheduled Sacrifices U2  
 Study start date: 30-May-01

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic				
		Brain	Kidneys	Liver	Lungs	Ovaries
6834F578/F	218.3	1.826	1.758	6.495	1.209	0.074
6834F581/F	207.5	1.943	2.040	8.358	2.150	0.098
6834F582/F	248.6	1.847	1.666	7.649	1.170	0.062
6834F589/F	267.9	1.991	1.991	9.316	2.582	0.152
6834F590/F	234.0	1.947	2.019	8.314	1.247	0.152
6834F594/F	299.0	1.885	1.845	10.570	1.171	0.108
6834F595/F	214.2	1.977	1.650	6.592	1.210	0.101
6834F599/F	200.0	1.777	1.967	6.822	3.218	0.153
	237.8	1.848	1.864	8.747	1.747	0.128
Standard deviation:	28.3	0.211	0.172	1.739	0.660	0.112
Number of observ. :	(18)	(18)	(18)	(18)	(18)	(18)
6836G653/F	207.9	1.879	1.416	6.856	1.277	0.116
6836G659/F	232.0	1.922	2.088	9.467	3.251	0.072
6836G664/F	223.0	1.870	1.850	7.449	1.315	0.056
6836G676/F	232.8	1.942	1.988	11.130	2.743	0.092
6836G678/F	235.4	1.882	1.970	8.714	1.668	0.127
6836G679/F	217.4	1.851	1.824	7.610	1.214	0.065
6836G680/F	213.1	1.951	2.137	9.056	2.880	0.026
6836G682/F	223.1	1.866	1.736	15.168	3.080	0.300
6836G683/F	240.7	1.916	1.747	7.473	1.190	0.163
6836G685/F	186.6	1.891	1.676	7.213	1.881	0.037
6836G687/F	223.0	1.962	2.142	11.239	1.869	0.065
6836G688/F	246.4	1.920	2.104	10.718	2.452	0.109
6836G691/F	156.8	1.743	1.265	5.034	1.090	0.083
6836G695/F	204.4	2.060	1.937	8.129	1.209	0.072
6836G696/F	175.2	1.665	1.302	6.162	0.935	0.087
6836G698/F	226.0	1.842	1.926	8.064	1.731	0.084
6836G699/F	153.9	1.777	1.195	4.320	0.982	0.089
	211.6	1.879	1.783	8.459	1.810	0.097
Standard deviation:	27.9	0.090	0.314	2.594	0.781	0.062
Number of observ. :	(17)	(17)	(17)	(17)	(17)	(17)
6838H751/F	197.9	1.902	2.111	24.354	4.074	0.064
6838H752/F	216.2	1.853	2.156	17.154	3.248	0.331
6838H753/F	188.8	1.853	2.636	6.476	3.319	0.061
6838H757/F	183.6	1.845	1.807	6.749	1.962	0.120
6838H763/F	229.8	1.859	1.770	6.901	1.105	0.092
6838H764/F	186.0	1.930	1.590	8.068	2.123	0.086

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013F  
 Unscheduled Sacrifices U2  
 Study start date: 30-May-01  
 Printed: 21-Jul-04  
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Rat/F344/N	Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic					
			Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6838H766/F	4/1	198.3	1.847	1.230	1.743	13.194	2.328	0.056
6838H770/F	4/1	198.8	1.804	1.192	2.158	9.384	2.238	0.026
6838H772/F	4/1	185.1	1.869	0.930	1.978	7.823	1.963	0.046
6838H774/F	4/1	190.1	1.815	0.743	1.445	8.637	2.081	0.051
6838H775/F	4/1	191.6	1.902	0.933	2.167	7.998	1.965	0.054
6838H783/F	4/1	196.1	1.744	0.754	2.072	9.072	1.145	0.080
6838H785/F	4/1	230.0	1.886	0.854	1.888	10.372	2.524	0.128
6838H792/F	4/1	199.7	1.865	1.077	2.085	9.105	2.394	0.066
6838H797/F	4/1	223.3	1.816	0.987	1.916	11.415	2.662	0.110
		201.0+	1.853%	0.914	1.968	10.447	2.342	0.091
Standard deviation:		16.0	0.046	0.164	0.286	4.747	0.776	0.072
Number of observ. :		(15)	(15)	(15)	(15)	(15)	(15)	(15)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary statistics for absolute organ weights (g)

Study number: FY01013F  
 Unscheduled Sacrifices U2  
 Study start date: 30-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus	F e m a l e A n i m a l s
6832E453/F	219.3	3.201	2.838	
6832E455/F	279.2	1.025	NT	
6832E457/F	201.2	7.608	0.520	
6832E459/F	223.0	22.379	0.879	
6832E465/F	192.6	0.489	0.865	
6832E466/F	237.0	7.533	0.896	
6832E468/F	260.6	1.389	0.694	
6832E469/F	201.9	6.239	1.279	
6832E470/F	239.4	8.409	0.461	
6832E471/F	236.9	8.992	0.437	
6832E474/F	189.3	4.961	0.451	
6832E476/F	259.5	14.677	0.597	
6832E479/F	263.3	7.731	0.579	
6832E481/F	203.4	1.085	NT	
6832E482/F	250.2	12.009	0.473	
6832E484/F	212.8	1.819	0.525	
6832E485/F	211.2	7.873	1.502	
6832E487/F	226.0	18.072	0.826	
6832E488/F	220.2	0.641	0.452	
6832E491/F	217.6	12.931	0.810	
6832E492/F	186.5	0.454	0.717	
6832E494/F	276.5	0.857	0.537	
6832E496/F	200.1	6.146	0.743	
6832E499/F	248.6	10.111	0.639	
	227.4	6.943	0.805	
Standard deviation:	27.6	5.928	0.528	
Number of observ. :	(24)	(24)	(22)	
6834F552/F	229.7	6.415	0.724	
6834F556/F	225.7	1.951	15.618	
6834F562/F	238.4	0.571	1.144	
6834F565/F	268.4	0.669	0.663	
6834F566/F	226.8	1.357	7.544	
6834F567/F	282.2	3.049	0.636	
6834F568/F	203.6	7.143	0.672	
6834F571/F	211.9	7.282	0.482	
6834F572/F	256.4	16.685	0.759	
6834F577/F	248.1	0.833	0.996	

M e a n:  
 Standard deviation:  
 Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary statistics for absolute organ weights (g)  
 Study number: FY01013F  
 Unscheduled Sacrifices U2  
 Rat/F344/N  
 Terminal Body wt. (g)  
 Splenee  
 Uterus  
 Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic  
 Printed: 21-Jul-04  
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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Splenee	Uterus
6834F578/F	218.3	0.614	0.717
6834F581/F	207.5	7.529	0.563
6834F582/F	248.6	1.668	28.077
6834F589/F	267.9	6.510	9.492
6834F590/F	234.0	0.639	NT
6834F594/F	299.0	0.546	0.512
6834F595/F	214.2	0.411	1.723
6834F599/F	200.0	6.733	0.663
6834F599/F	237.8	3.923	4.176
Standard deviation:	28.3	4.281	7.468
Number of observ. :	(18)	(18)	(17)
6836G653/F	207.9	0.631	0.705
6836G659/F	232.0	14.041	0.494
6836G664/F	223.0	1.283	1.117
6836G676/F	232.8	10.824	1.351
6836G678/F	235.4	1.174	1.471
6836G679/F	217.4	0.532	0.448
6836G680/F	213.1	9.238	0.792
6836G682/F	223.1	6.951	1.095
6836G683/F	240.7	0.478	19.307
6836G685/F	186.6	6.049	0.574
6836G687/F	223.0	6.402	0.570
6836G688/F	246.4	6.811	0.731
6836G691/F	156.8	0.346	0.546
6836G695/F	204.4	0.427	0.447
6836G696/F	175.2	0.372	0.408
6836G698/F	226.0	4.538	1.115
6836G699/F	153.9	0.410	0.250
6836G699/F	211.6	4.147	1.848
Standard deviation:	27.9	4.363	4.513
Number of observ. :	(17)	(17)	(17)
6838H751/F	197.9	1.322	0.577
6838H752/F	216.2	8.120	2.570
6838H753/F	188.8	0.899	10.751
6838H757/F	183.6	5.112	0.710
6838H763/F	229.8	0.589	21.352
6838H764/F	186.0	2.415	0.680

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
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Summary statistics for absolute organ weights (g)

Study number: FY01013F  
 Unscheduled Sacrifices U2  
 Study start date: 30-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal No/sex	Group/ Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6838H766/F	4/1	198.3	12.559	0.668
6838H770/F	4/1	198.8	4.392	1.004
6838H772/F	4/1	185.1	2.453	0.620
6838H774/F	4/1	190.1	5.702	0.681
6838H775/F	4/1	191.6	3.654	0.732
6838H783/F	4/1	196.1	0.678	0.450
6838H785/F	4/1	230.0	5.651	0.718
6838H792/F	4/1	199.7	13.648	0.577
6838H797/F	4/1	223.3	7.103	0.578
		201.0+	4.953	2.845
		16.0	4.060	5.746
		(15)	(15)	(15)

Mean:  
 Standard deviation:  
 Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 \*(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

K-5 Percent Organ to Body Weight, Male and Female, Euthanized Rats

Summary Statistics for % Organ to Body Weight  
Study number: FY01013M  
Unscheduled Sacrifices U2  
Study start date: 23-May-01

Lovelace Respiratory  
Research Institute

Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Heart			Kidneys	Liver	Lungs	
			Brain	Epididymis	A n i m a l s				
6831E401/M	1/1	350.8	0.019	0.624	0.182	0.362	0.785	5.147	0.884
6831E402/M	1/1	375.6	0.014	NT	0.270	0.342	0.732	3.611	0.804
6831E403/M	1/1	276.1	0.023	0.725	0.153	0.405	0.879	3.908	1.125
6831E404/M	1/1	494.2	0.014	0.424	0.178	0.279	0.571	3.110	0.585
6831E405/M	1/1	311.3	0.018	0.667	0.115	0.552	0.834	3.312	0.970
6831E406/M	1/1	224.4	0.042	0.880	0.326	0.435	0.860	1.811	0.616
6831E408/M	1/1	312.1	0.016	0.674	0.261	0.277	0.691	2.322	0.370
6831E409/M	1/1	300.4	0.023	0.697	0.184	0.280	0.820	3.685	0.738
6831E410/M	1/1	369.2	0.032	0.565	0.154	0.368	0.821	5.181	0.812
6831E411/M	1/1	339.4	0.019	0.612	0.130	0.324	0.860	5.823	1.165
6831E412/M	1/1	331.9	0.023	0.601	0.105	0.290	0.612	2.506	0.407
6831E414/M	1/1	255.3	0.043	0.825	0.210	0.463	0.966	3.084	1.434
6831E416/M	1/1	385.4	0.020	0.534	0.132	0.299	0.768	4.633	1.074
6831E417/M	1/1	372.5	0.019	0.552	0.242	0.337	0.695	2.747	0.474
6831E419/M	1/1	359.2	0.018	0.609	0.088	0.416	0.867	4.310	1.374
6831E420/M	1/1	355.4	0.017	0.558	0.133	0.300	0.765	3.624	0.733
6831E421/M	1/1	385.2	0.016	0.545	0.207	0.347	0.782	3.267	1.062
6831E423/M	1/1	381.1	0.029	0.584	0.150	0.325	0.714	3.617	0.857
6831E424/M	1/1	365.0	0.027	0.736	0.146	0.483	0.908	4.042	0.853
6831E426/M	1/1	282.1	0.024	0.716	0.159	0.495	0.931	3.263	1.160
6831E427/M	1/1	294.9	0.020	0.570	0.158	0.348	0.692	5.445	1.982
6831E428/M	1/1	355.2	0.022	0.613	0.134	0.398	0.805	3.042	0.564
6831E429/M	1/1	327.7	0.023	0.636	0.142	0.378	0.714	4.348	0.866
6831E430/M	1/1	346.8	0.016	0.650	0.268	0.336	0.700	2.331	0.772
6831E432/M	1/1	379.0	0.012	0.540	0.133	0.380	0.757	2.307	0.413
6831E433/M	1/1	311.2	0.020	0.646	0.183	0.332	0.771	4.618	0.859
6831E434/M	1/1	317.5	0.029	0.636	0.187	0.385	1.013	3.118	0.500
6831E438/M	1/1	331.8	0.022	0.643	0.151	0.388	0.939	3.953	0.529
6831E439/M	1/1	417.3	0.007	0.471	0.273	0.252	0.602	5.494	0.959
6831E441/M	1/1	366.9	0.017	0.593	0.237	0.365	0.602	3.127	0.353
6831E444/M	1/1	331.1	0.026	0.607	0.173	0.324	0.778	3.050	0.840
6831E445/M	1/1	369.9	0.016	0.559	0.122	0.399	0.760	4.873	1.025
6831E447/M	1/1	353.4	0.018	0.578	0.147	0.332	0.732	3.321	0.946
6831E450/M	1/1	440.7	0.012	0.456	0.234	0.275	0.626	5.557	1.019
Standard deviation:		346.4	0.021	0.614	0.180	0.360	0.780	3.745	0.501
Number of observ. :		50.7	0.007	0.094	0.056	0.068	0.103	1.045	0.846
		(35)	(35)	(34)	(35)	(35)	(35)	(35)	(35)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Body Weight  
Study number: FY01013M  
Unscheduled Sacrifices U2  
Study start date: 23-May-01

Lovelace Respiratory  
Research Institute

Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6833F504/M	2/1	344.8	0.118	0.635	0.107	0.372	6.025	1.045
6833F506/M	2/1	299.2	0.017	0.710	0.120	0.423	4.383	1.227
6833F507/M	2/1	367.4	0.018	0.557	0.167	0.379	4.391	0.868
6833F509/M	2/1	503.4	0.020	0.408	0.234	0.265	2.028	0.339
6833F510/M	2/1	314.7	0.025	0.654	0.138	0.388	2.858	0.513
6833F512/M	2/1	306.8	0.018	0.185	0.185	0.454	3.512	0.983
6833F514/M	2/1	395.1	0.010	0.503	0.205	0.287	3.319	0.471
6833F515/M	2/1	352.0	0.020	0.600	0.201	0.302	4.255	0.792
6833F517/M	2/1	408.0	0.012	0.525	0.180	0.329	4.634	0.821
6833F518/M	2/1	407.4	0.020	0.529	0.103	0.346	3.995	0.683
6833F520/M	2/1	324.1	0.035	0.634	0.160	0.445	5.102	0.798
6833F522/M	2/1	377.2	0.022	0.553	0.113	0.344	4.670	0.757
6833F527/M	2/1	357.5	0.020	0.552	0.253	0.334	4.245	0.562
6833F528/M	2/1	309.8	0.014	0.617	0.199	0.374	3.122	0.883
6833F529/M	2/1	444.5	0.015	0.462	0.205	0.283	2.806	0.369
6833F530/M	2/1	329.6	0.017	0.630	0.180	0.396	3.516	0.662
6833F531/M	2/1	355.2	0.023	0.596	0.175	0.372	2.927	0.474
6833F532/M	2/1	314.7	0.019	0.660	0.276	0.392	5.088	2.049
6833F533/M	2/1	388.3	0.014	0.524	0.211	0.479	6.067	0.611
6833F534/M	2/1	247.0	0.019	0.807	0.175	0.539	4.489	1.143
6833F537/M	2/1	338.3	0.018	0.630	0.128	0.286	3.029	1.219
6833F538/M	2/1	369.0	0.018	0.566	0.139	0.364	2.571	1.033
6833F539/M	2/1	259.2	0.036	0.805	0.172	0.402	1.930	0.569
6833F540/M	2/1	300.4	0.022	0.717	0.343	0.428	3.041	0.969
6833F543/M	2/1	325.3	0.019	0.612	0.104	0.284	4.304	2.252
6833F544/M	2/1	352.7	0.033	0.555	0.122	0.555	5.445	0.840
6833F545/M	2/1	367.1	0.029	0.549	0.195	0.424	5.567	0.911
6833F546/M	2/1	350.7	0.022	0.569	0.097	0.333	4.217	0.814
6833F548/M	2/1	472.7	0.022	0.472	0.106	0.305	4.427	0.582
Standard deviation:		354.6	0.024	0.597	0.172	0.375	4.002	0.870
Number of observ. :		(29)	(29)	(29)	(29)	(29)	(29)	(29)
6835G604/M	3/1	334.8	0.026	0.611	0.114	0.353	4.429	3.641
6835G606/M	3/1	411.5	0.019	0.526	0.160	0.344	4.354	0.801
6835G608/M	3/1	319.0	0.020	0.661	0.106	0.603	4.448	1.074
6835G611/M	3/1	290.7	0.033	0.733	0.231	0.423	3.336	0.976
6835G612/M	3/1	317.1	0.031	0.673	0.120	0.391	4.325	1.210

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory  
Research Institute

Summary Statistics for % Organ to Body Weight  
Study number: FY01013M  
Unscheduled Sacrifices U2  
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Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6835G616/M	3/1	350.1	0.023	0.598	0.109	0.407	5.297	0.832
6835G618/M	3/1	333.2	0.019	0.632	0.156	0.422	4.689	1.094
6835G619/M	3/1	331.5	0.033	0.661	0.124	0.428	4.628	0.764
6835G620/M	3/1	334.6	0.018	0.628	0.097	0.411	5.403	1.184
6835G622/M	3/1	312.8	0.032	0.669	0.110	0.386	4.414	1.119
6835G623/M	3/1	381.3	0.015	0.515	0.244	0.261	2.815	0.460
6835G624/M	3/1	310.6	0.017	0.647	0.121	0.354	3.723	0.797
6835G626/M	3/1	347.1	0.016	0.613	0.120	0.351	4.400	0.724
6835G629/M	3/1	316.6	0.031	0.669	0.157	0.376	3.937	0.833
6835G631/M	3/1	362.6	0.022	0.580	0.109	0.414	5.024	1.015
6835G632/M	3/1	323.8	0.019	0.638	0.113	0.373	3.623	0.811
6835G633/M	3/1	420.2	0.015	0.484	0.107	0.262	3.921	0.454
6835G635/M	3/1	307.0	0.032	0.700	0.127	0.446	4.088	0.637
6835G637/M	3/1	326.4	0.021	0.601	0.129	0.313	4.065	1.026
6835G640/M	3/1	291.4	0.023	0.695	0.177	0.390	4.674	1.305
6835G641/M	3/1	349.9	0.020	0.597	0.131	0.395	4.985	0.693
6835G642/M	3/1	334.1	0.025	0.622	0.151	0.447	5.809	1.039
6835G643/M	3/1	407.3	0.017	0.536	0.162	0.276	3.658	0.402
6835G644/M	3/1	353.4	0.018	0.584	0.217	0.384	4.230	0.834
6835G645/M	3/1	323.0	0.024	0.644	0.167	0.375	3.515	0.495
6835G646/M	3/1	356.0	0.064	0.568	0.109	0.372	5.642	0.950
6835G650/M	3/1	341.9	0.027	0.579	0.248	0.378	3.300	0.453
Mean:		339.9	0.024	0.617	0.145*	0.383	4.323	0.949
Standard deviation:		33.5	0.010	0.059	0.044	0.066	0.736	0.594
Number of observ. :		(27)	(27)	(27)	(27)	(27)	(27)	(27)
6837H701/M	4/1	253.6	0.039	0.763	0.126	0.504	5.052	1.086
6837H703/M	4/1	435.2	0.020	0.470	0.146	0.269	3.765	0.416
6837H707/M	4/1	353.8	0.050	0.578	0.131	0.471	4.588	0.745
6837H709/M	4/1	362.3	0.014	0.565	0.119	0.345	5.968	0.778
6837H710/M	4/1	305.8	0.023	0.673	0.167	0.387	3.502	0.758
6837H711/M	4/1	358.8	0.029	0.558	0.192	0.820	3.647	0.495
6837H712/M	4/1	348.6	0.017	0.592	0.180	0.262	3.588	0.478
6837H713/M	4/1	301.4	0.039	0.661	0.195	0.413	5.480	0.839
6837H715/M	4/1	365.1	0.020	0.589	0.112	0.367	6.177	0.850
6837H716/M	4/1	411.5	0.017	0.503	0.251	0.244	3.589	0.440
6837H719/M	4/1	365.4	0.014	0.541	0.215	0.348	4.173	0.720
6837H720/M	4/1	301.7	0.018	0.687	0.110	0.384	4.944	0.831
6837H721/M	4/1	362.5	0.023	0.573	0.117	0.317	3.820	0.445

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory  
Research Institute

Summary Statistics for % Organ to Body Weight  
Study number: FY01013M  
Unscheduled Sacrifices U2  
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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6837H723/M	4/1	333.5	0.607	0.179	0.300	0.860	4.736	0.936
6837H727/M	4/1	304.8	0.644	0.110	0.529	0.963	4.275	0.869
6837H730/M	4/1	334.0	0.632	0.138	0.422	0.814	3.271	0.552
6837H731/M	4/1	304.6	0.671	0.156	0.322	0.901	4.654	1.071
6837H733/M	4/1	298.5	0.686	0.208	0.348	0.839	5.385	1.073
6837H734/M	4/1	316.5	0.642	0.121	0.370	0.984	6.740	1.033
6837H737/M	4/1	323.8	0.625	0.096	0.450	0.905	5.002	0.971
6837H738/M	4/1	330.4	0.621	0.180	0.421	0.879	4.079	0.820
6837H740/M	4/1	315.5	0.695	0.113	0.398	0.843	4.884	0.891
6837H742/M	4/1	307.8	0.643	0.153	0.360	0.886	6.920	1.171
6837H743/M	4/1	301.2	0.695	0.145	0.433	1.036	3.899	0.911
6837H744/M	4/1	296.4	0.656	0.236	0.419	0.956	4.455	1.111
6837H745/M	4/1	273.9	0.741	0.142	0.468	0.920	2.809	0.925
6837H746/M	4/1	287.8	0.700	0.221	0.389	0.996	4.261	1.440
6837H748/M	4/1	364.1	0.548	0.196	0.374	0.908	5.460	0.773
6837H750/M	4/1	305.6	0.670	0.128	0.364	1.030	5.281	1.125
		328.4	0.629	0.158	0.380	1.013\$	4.635+	0.847
		39.6	0.069	0.043	0.069	0.428	1.019	0.249
		(29)	(29)	(29)	(29)	(29)	(29)	(29)

Standard deviation:  
Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
%(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	M a l e A n i m a l s
6831E401/M	1/1	350.8	0.929
6831E402/M	1/1	375.6	0.803
6831E403/M	1/1	276.1	1.051
6831E404/M	1/1	494.2	0.863
6831E405/M	1/1	311.3	0.531
6831E406/M	1/1	224.4	1.031
6831E408/M	1/1	312.1	0.964
6831E409/M	1/1	300.4	0.771
6831E410/M	1/1	369.2	0.690
6831E411/M	1/1	339.4	0.484
6831E412/M	1/1	331.9	0.666
6831E414/M	1/1	255.3	0.772
6831E416/M	1/1	385.4	0.553
6831E417/M	1/1	372.5	0.798
6831E419/M	1/1	359.2	0.400
6831E420/M	1/1	355.4	0.581
6831E421/M	1/1	385.2	1.299
6831E423/M	1/1	381.1	0.666
6831E424/M	1/1	365.0	0.736
6831E426/M	1/1	282.1	0.821
6831E427/M	1/1	294.9	0.341
6831E428/M	1/1	355.2	0.783
6831E429/M	1/1	352.3	0.715
6831E430/M	1/1	327.7	0.719
6831E431/M	1/1	346.8	0.911
6831E432/M	1/1	379.0	0.524
6831E433/M	1/1	311.2	1.507
6831E434/M	1/1	317.5	0.694
6831E438/M	1/1	331.8	0.375
6831E439/M	1/1	417.3	0.819
6831E441/M	1/1	366.9	0.727
6831E444/M	1/1	331.1	0.576
6831E445/M	1/1	369.9	0.900
6831E447/M	1/1	353.4	0.482
6831E450/M	1/1	440.7	0.689
Standard deviation:		346.4	0.756
Number of observ. :		50.7	0.235
		(35)	(35)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6833F504/M	2/1	344.8	0.562
6833F506/M	2/1	299.2	0.793
6833F507/M	2/1	367.4	4.151
6833F509/M	2/1	503.4	0.332
6833F510/M	2/1	314.7	0.319
6833F512/M	2/1	306.8	0.965
6833F514/M	2/1	395.1	0.505
6833F515/M	2/1	352.0	0.666
6833F517/M	2/1	408.0	0.622
6833F518/M	2/1	407.4	0.828
6833F520/M	2/1	324.1	0.795
6833F522/M	2/1	377.2	0.838
6833F527/M	2/1	357.5	0.638
6833F528/M	2/1	309.8	0.707
6833F529/M	2/1	444.5	0.705
6833F530/M	2/1	329.6	1.048
6833F531/M	2/1	355.2	0.707
6833F532/M	2/1	314.7	0.574
6833F533/M	2/1	388.3	0.870
6833F534/M	2/1	247.0	0.753
6833F537/M	2/1	338.3	0.832
6833F538/M	2/1	369.0	0.546
6833F539/M	2/1	259.2	0.737
6833F540/M	2/1	300.4	1.029
6833F543/M	2/1	325.3	0.804
6833F544/M	2/1	352.7	0.642
6833F545/M	2/1	367.1	1.140
6833F546/M	2/1	350.7	0.602
6833F548/M	2/1	472.7	0.996
		354.6	1.367
		56.9	0.773
		(29)	0.203
		(29)	(29)
		334.8	1.015
		411.5	0.842
		319.0	1.704
		290.7	0.879
		317.1	1.126
		3.379	
		2.706	
		1.211	
		1.701	
		7.008	
		5.421	
		0.367	
		4.145	
		0.212	
		5.620	
		2.876	
		0.676	
		5.334	
		2.080	
		2.824	
		0.298	
		0.481	
		0.260	
		0.870	
		0.574	
		0.707	
		1.048	
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Rat/F344/N Animal Group/ Terminal No/sex Subgroup Body wt. (g) Splene Testes

Rat/F344/N	Animal Group/	Terminal	No/sex Subgroup	Body wt. (g)	Splene	Testes
6835G616/M	3/1	350.1			4.288	0.576
6835G618/M	3/1	333.2			4.023	0.666
6835G619/M	3/1	321.5			2.014	0.880
6835G620/M	3/1	334.6			4.065	0.518
6835G622/M	3/1	312.8			3.064	1.218
6835G623/M	3/1	381.3			0.297	0.733
6835G624/M	3/1	310.6			2.938	0.673
6835G626/M	3/1	347.1			1.100	1.179
6835G629/M	3/1	316.6			4.344	0.502
6835G631/M	3/1	362.6			1.510	0.865
6835G632/M	3/1	323.8			2.345	0.656
6835G633/M	3/1	420.2			0.847	1.626
6835G635/M	3/1	307.0			0.351	NT
6835G637/M	3/1	326.4			1.343	0.744
6835G640/M	3/1	291.4			7.308	0.847
6835G641/M	3/1	349.9			4.752	0.941
6835G642/M	3/1	334.1			2.230	1.110
6835G643/M	3/1	407.3			0.321	1.272
6835G644/M	3/1	353.4			2.974	0.779
6835G645/M	3/1	323.0			0.275	1.545
6835G646/M	3/1	356.0			6.148	0.813
6835G650/M	3/1	341.9			0.291	0.851
	Mean:	339.9			2.631	0.945%
	Standard deviation:	33.5			1.842	0.324
	Number of observ. :	(27)			(27)	(26)
6837H701/M	4/1	253.6			0.450	1.651
6837H703/M	4/1	435.2			0.554	0.469
6837H707/M	4/1	353.8			7.016	0.408
6837H709/M	4/1	362.3			4.568	0.535
6837H710/M	4/1	305.8			0.544	1.326
6837H711/M	4/1	358.8			0.376	1.173
6837H712/M	4/1	348.6			0.311	0.868
6837H713/M	4/1	301.4			1.311	0.646
6837H715/M	4/1	365.1			3.704	0.712
6837H716/M	4/1	411.5			0.247	0.874
6837H719/M	4/1	365.4			5.398	0.811
6837H720/M	4/1	301.7			3.352	0.838
6837H721/M	4/1	362.5			0.350	1.714

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Body Weight  
 Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Rat/F344/N  
 Study start date: 23-May-01  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6837H723/M	4/1 333.5	4.656	0.497
6837H727/M	4/1 304.8	4.001	0.770
6837H730/M	4/1 334.0	0.410	1.740
6837H731/M	4/1 304.6	1.691	0.770
6837H733/M	4/1 298.5	3.691	0.657
6837H734/M	4/1 316.5	1.725	1.337
6837H737/M	4/1 323.8	4.849	0.416
6837H738/M	4/1 330.4	2.389	0.789
6837H740/M	4/1 315.5	2.560	0.765
6837H742/M	4/1 307.8	4.916	0.548
6837H743/M	4/1 301.2	2.479	1.399
6837H744/M	4/1 296.4	3.945	0.691
6837H745/M	4/1 273.9	0.170	1.071
6837H746/M	4/1 287.8	2.755	0.441
6837H748/M	4/1 364.1	4.004	0.673
6837H750/M	4/1 305.6		NT
	Mean: 328.4	2.607	0.878
	Standard deviation: 39.6	1.916	0.398
	Number of observ.: (29)	(29)	(28)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Body Weight  
Study number: FY01013F  
Unscheduled Sacrifices U2  
Study start date: 30-May-01

Lovelace Respiratory  
Research Institute

Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Brain			Heart			Kidneys			Liver			Lungs			Ovaries			
		Adrenal glands	Brain	Heart	Kidneys	Liver	Lungs	Ovaries	Brain	Heart	Kidneys	Liver	Lungs	Ovaries	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6832E453/F	219.3	0.027	0.855	0.377	0.803	6.193	0.934	0.068												
6832E455/F	279.2	0.025	0.681	0.347	0.672	3.371	0.508	0.045												
6832E457/F	201.2	0.038	0.969	0.473	0.935	3.889	0.929	0.032												
6832E459/F	223.0	0.031	0.866	0.422	0.761	8.774	1.117	0.031												
6832E465/F	192.6	0.034	0.965	0.444	0.808	2.506	0.503	0.028												
6832E466/F	237.0	0.022	0.806	0.426	0.733	4.010	0.789	0.055												
6832E468/F	260.6	0.022	0.759	0.408	0.700	3.024	0.529	0.043												
6832E469/F	201.9	0.035	0.907	0.470	1.011	3.445	0.812	0.046												
6832E470/F	239.4	0.023	0.799	0.345	0.702	4.980	1.412	0.036												
6832E471/F	236.9	0.024	0.788	0.482	0.793	4.895	1.265	0.035												
6832E474/F	189.3	0.029	1.066	0.525	0.933	4.329	1.076	0.033												
6832E476/F	259.5	0.026	0.733	0.400	0.781	5.063	1.142	0.013												
6832E479/F	263.3	0.027	0.740	0.487	0.741	3.748	0.809	0.039												
6832E481/F	203.4	0.032	0.911	0.398	0.781	3.545	0.604	0.090												
6832E482/F	250.2	0.028	0.789	0.476	0.902	5.766	1.059	0.031												
6832E484/F	212.8	0.026	0.898	0.562	1.043	4.824	1.283	0.023												
6832E485/F	211.2	0.032	0.858	0.486	0.888	5.780	1.071	0.048												
6832E487/F	226.0	0.030	0.854	0.365	0.746	5.667	0.953	0.026												
6832E488/F	220.2	0.034	0.835	0.454	0.891	3.480	0.521	0.026												
6832E491/F	217.6	0.039	0.916	0.468	0.996	5.262	1.098	0.028												
6832E492/F	186.5	0.029	0.982	0.371	0.741	2.692	0.514	0.035												
6832E494/F	276.5	0.019	0.687	0.387	0.643	2.942	0.426	0.030												
6832E496/F	200.1	0.028	0.919	0.563	0.997	4.419	1.200	0.046												
6832E499/F	248.6	0.020	0.732	0.321	0.672	4.308	0.577	0.039												
Standard deviation:	227.4	0.028	0.846	0.436	0.820	4.455	0.881	0.039												
Number of observ. :	27.6	0.005	0.099	0.066	0.119	1.391	0.298	0.016												
	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)												
6834F552/F	229.7	0.029	0.840	0.492	0.841	4.294	1.109	0.029												
6834F556/F	225.7	0.038	0.827	0.470	0.762	3.253	0.615	0.016												
6834F562/F	238.4	0.023	0.434	0.326	0.771	2.848	0.500	0.040												
6834F565/F	268.4	0.021	0.720	0.359	0.688	3.802	0.432	0.051												
6834F566/F	226.8	0.037	0.840	0.384	0.788	3.312	0.573	0.046												
6834F567/F	282.2	0.028	0.678	0.357	0.769	4.182	0.523	0.049												
6834F568/F	203.6	0.034	0.901	0.375	0.714	5.991	0.895	0.027												
6834F571/F	211.9	0.028	0.884	0.578	0.899	4.383	1.256	0.027												
6834F572/F	256.4	0.020	0.713	0.388	0.786	3.448	0.629	0.049												
6834F577/F	248.1	0.038	0.787	0.376	0.782	3.825	0.941	0.039												

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 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory Research Institute  
 Summary Statistics for % Organ to Body Weight  
 Study number: FY01013F  
 Unscheduled Sacrifices U2  
 Rat/F344/N  
 Study start date: 30-May-01  
 Printed: 21-Jul-04  
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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic				
		Brain	Heart	Kidneys	Liver	Ovaries
6834F578/F	218.3	0.836	0.365	0.805	2.975	0.554
6834F581/F	207.5	0.937	0.575	0.983	4.029	1.036
6834F582/F	248.6	0.030	0.337	0.670	3.077	0.471
6834F589/F	267.9	0.743	0.418	0.743	3.477	0.964
6834F590/F	234.0	0.832	0.355	0.863	3.553	0.533
6834F594/F	299.0	0.630	0.305	0.617	3.535	0.392
6834F595/F	214.2	0.923	0.331	0.770	3.078	0.565
6834F599/F	200.0	0.889	0.576	0.984	3.412	1.609
M e a n:		0.786	0.409	0.791	3.693%	0.755
Standard deviation:		0.124	0.090	0.097	0.730	0.335
Number of observ. :		(18)	(18)	(18)	(18)	(18)
6836G653/F	207.9	0.904	0.429	0.681	3.298	0.614
6836G659/F	232.0	0.829	0.456	0.900	4.081	1.401
6836G664/F	223.0	0.838	0.387	0.830	3.340	0.590
6836G676/F	232.8	0.834	0.432	0.854	4.780	1.178
6836G678/F	235.4	0.799	0.334	0.837	3.701	0.708
6836G679/F	217.4	0.851	0.354	0.839	3.500	0.558
6836G680/F	213.1	0.915	0.602	1.003	4.249	1.351
6836G682/F	223.1	0.836	0.427	0.778	6.798	1.380
6836G683/F	240.7	0.796	0.403	0.726	3.105	0.494
6836G685/F	186.6	1.013	0.499	0.898	3.865	1.008
6836G687/F	223.0	0.880	0.454	0.961	5.040	0.838
6836G688/F	246.4	0.779	0.381	0.854	4.349	0.995
6836G691/F	156.8	1.111	0.390	0.807	3.210	0.695
6836G695/F	204.4	1.008	0.437	0.948	3.977	0.591
6836G696/F	175.2	0.951	0.337	0.743	3.518	0.534
6836G698/F	226.0	0.815	0.374	0.852	3.569	0.766
6836G699/F	153.9	1.155	0.335	0.776	2.807	0.638
M e a n:		0.901	0.414	0.840	3.952	0.844
Standard deviation:		0.112	0.068	0.085	0.943	0.315
Number of observ. :		(17)	(17)	(17)	(17)	(17)
6838H751/F	197.9	0.961	0.391	1.067	12.308	2.059
6838H752/F	216.2	0.857	0.418	0.997	7.934	1.502
6838H753/F	188.8	0.047	0.389	1.396	3.429	1.758
6838H757/F	183.6	1.005	0.562	0.984	3.676	1.069
6838H763/F	229.8	0.809	0.311	0.770	3.003	0.481
6838H764/F	186.0	1.038	0.460	0.855	4.337	1.141

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Summary Statistics for % Organ to Body Weight  
Study number: FY01013F  
Unscheduled Sacrifices U2  
Study start date: 30-May-01

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Rat/F344/N	Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic					
			Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6838H766/F	4/1	198.3	0.931	0.620	0.879	6.652	1.174	0.028
6838H770/F	4/1	198.8	0.907	0.600	1.085	4.720	1.126	0.013
6838H772/F	4/1	185.1	1.010	0.502	1.069	4.226	1.061	0.025
6838H774/F	4/1	190.1	0.955	0.391	0.760	4.543	1.095	0.027
6838H775/F	4/1	191.6	0.993	0.487	1.131	4.174	1.026	0.028
6838H783/F	4/1	196.1	0.889	0.385	1.057	4.626	0.584	0.041
6838H785/F	4/1	230.0	0.820	0.371	0.821	4.510	1.097	0.056
6838H792/F	4/1	199.7	0.934	0.539	1.044	4.560	1.199	0.033
6838H797/F	4/1	223.3	0.813	0.442	0.858	5.112	1.192	0.049
		201.0+	0.927	0.458	0.985\$	5.187	1.171*	0.045
Standard deviation:		16.0	0.075	0.091	0.167	2.315	0.389	0.033
Number of observ. :		(15)	(15)	(15)	(15)	(15)	(15)	(15)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Body Weight  
Study number: FY01013F  
Unscheduled Sacrifices U2  
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Rat/F344/N Animal Group/ Terminal No/sex Subgroup Body wt. (g) Uterus Inhalation/whole-bdy/Chronic

Animal Group/ Terminal No/sex Subgroup	Body wt. (g)	Spleen	Female	Animals
6832E453/F	219.3	1.460	1.294	
6832E455/F	279.2	0.367	NT	
6832E457/F	201.2	3.781	0.258	
6832E459/F	223.0	10.036	0.394	
6832E465/F	192.6	0.254	0.449	
6832E466/F	237.0	3.178	0.378	
6832E468/F	260.6	0.533	0.266	
6832E469/F	201.9	3.090	0.633	
6832E470/F	239.4	3.512	0.193	
6832E471/F	236.9	3.795	0.184	
6832E474/F	189.3	2.621	0.238	
6832E476/F	259.5	5.655	0.230	
6832E479/F	263.3	2.936	0.220	
6832E481/F	203.4	0.533	NT	
6832E482/F	250.2	4.799	0.189	
6832E484/F	212.8	0.855	0.247	
6832E485/F	211.2	3.727	0.711	
6832E487/F	226.0	7.996	0.365	
6832E488/F	220.2	0.291	0.205	
6832E491/F	217.6	5.942	0.372	
6832E492/F	186.5	0.243	0.385	
6832E494/F	276.5	0.310	0.194	
6832E496/F	200.1	3.071	0.371	
6832E499/F	248.6	4.067	0.257	
	227.4	3.044	0.365	
Standard deviation:	27.6	2.575	0.250	
Number of observ. :	(24)	(24)	(22)	
6834F552/F	229.7	2.792	0.315	
6834F556/F	225.7	0.864	6.920	
6834F562/F	238.4	0.239	0.480	
6834F565/F	268.4	0.249	0.247	
6834F566/F	226.8	0.598	3.327	
6834F567/F	282.2	1.080	0.225	
6834F568/F	203.6	3.508	0.330	
6834F571/F	211.9	3.436	0.227	
6834F572/F	256.4	6.507	0.296	
6834F577/F	248.1	0.336	0.401	

Mean:  
Standard deviation:  
Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
\*(%) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Body Weight  
 Study number: FY01013F  
 Unscheduled Sacrifices U2  
 Rat/F344/N Study start date: 30-May-01

Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6834F578/F 2/1	218.3	0.281	0.328
6834F581/F 2/1	207.5	3.629	0.271
6834F582/F 2/1	248.6	0.671	11.294
6834F589/F 2/1	267.9	2.430	3.543
6834F590/F 2/1	234.0	0.273	NT
6834F594/F 2/1	299.0	0.183	0.171
6834F595/F 2/1	214.2	0.192	0.804
6834F599/F 2/1	200.0	3.367	0.332
	237.8	1.702	1.736
Standard deviation:	28.3	1.810	3.058
Number of observ. :	(18)	(18)	(17)
6836G653/F 3/1	207.9	0.303	0.339
6836G659/F 3/1	232.0	6.053	0.213
6836G664/F 3/1	223.0	0.575	0.501
6836G676/F 3/1	232.8	4.649	0.580
6836G678/F 3/1	235.4	0.499	0.625
6836G679/F 3/1	217.4	0.245	0.206
6836G680/F 3/1	213.1	4.335	0.372
6836G682/F 3/1	223.1	3.115	0.491
6836G683/F 3/1	240.7	0.199	8.021
6836G685/F 3/1	186.6	3.242	0.308
6836G687/F 3/1	223.0	2.871	0.256
6836G688/F 3/1	246.4	2.764	0.297
6836G691/F 3/1	156.8	0.221	0.348
6836G695/F 3/1	204.4	0.209	0.219
6836G696/F 3/1	175.2	0.212	0.233
6836G698/F 3/1	226.0	2.008	0.493
6836G699/F 3/1	153.9	0.266	0.162
	211.6	1.869	0.804
Standard deviation:	27.9	1.917	1.865
Number of observ. :	(17)	(17)	(17)
6838H751/F 4/1	197.9	0.668	0.292
6838H752/F 4/1	216.2	3.756	1.189
6838H753/F 4/1	188.8	0.476	5.693
6838H757/F 4/1	183.6	2.784	0.387
6838H763/F 4/1	229.8	0.256	9.292
6838H764/F 4/1	186.0	1.298	0.366

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Body Weight  
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Unscheduled Sacrifices U2  
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Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6838H766/F	4/1 198.3	6.332	0.337
6838H770/F	4/1 198.8	2.209	0.505
6838H772/F	4/1 185.1	1.325	0.335
6838H774/F	4/1 190.1	2.999	0.358
6838H775/F	4/1 191.6	1.907	0.382
6838H783/F	4/1 196.1	0.346	0.229
6838H785/F	4/1 230.0	2.457	0.312
6838H792/F	4/1 199.7	6.836	0.289
6838H797/F	4/1 223.3	3.181	0.259
	Mean: 201.0+	2.455	1.348
	Standard deviation: 16.0	2.004	2.596
	Number of observ. : (15)	(15)	(15)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 \*(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

K-6 Percent Organ to Brain Weight, Male and Female, Euthanized Rats

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Summary Statistics for % Organ to Brain Weight

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Study number: FY01013M  
Unscheduled Sacrifices U2  
Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Rat/F344/N

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs
6831E401/M	1/1	350.8	100.000	29.146	58.063	125.765	824.852	141.663
6831E402/M	1/1	375.6	NT	21.118	55.866	121.118	538.792	155.067
6831E403/M	1/1	276.1	100.000	42.073	65.903	134.862	734.145	137.966
6831E404/M	1/1	494.2	100.000	17.205	82.795	125.060	496.916	145.542
6831E405/M	1/1	311.3	100.000	37.031	49.443	97.771	205.826	70.061
6831E406/M	1/1	224.4	100.000	38.765	41.140	102.470	344.276	54.869
6831E408/M	1/1	312.1	100.000	26.457	40.210	117.670	528.606	105.922
6831E409/M	1/1	300.4	100.000	27.168	65.069	145.232	916.579	143.747
6831E410/M	1/1	369.2	100.000	21.174	52.839	140.520	950.962	190.279
6831E411/M	1/1	339.4	100.000	17.553	48.195	101.856	417.101	67.803
6831E412/M	1/1	331.9	100.000	25.463	56.105	117.102	374.014	173.919
6831E414/M	1/1	255.3	100.000	24.648	55.955	143.996	868.206	201.215
6831E416/M	1/1	385.4	100.000	43.893	61.168	126.034	497.956	85.839
6831E417/M	1/1	372.5	100.000	14.390	68.296	142.257	707.218	225.491
6831E419/M	1/1	359.2	100.000	23.802	53.757	137.166	649.471	131.417
6831E420/M	1/1	355.4	100.000	37.989	63.680	143.613	599.857	195.043
6831E421/M	1/1	385.2	100.000	39.063	56.347	127.447	645.714	152.974
6831E423/M	1/1	381.1	100.000	25.657	55.629	129.268	692.073	146.013
6831E424/M	1/1	365.0	100.000	19.894	65.655	123.459	443.497	157.659
6831E426/M	1/1	282.1	100.000	22.180	69.242	130.095	760.995	276.967
6831E427/M	1/1	294.9	100.000	27.781	60.900	121.453	534.058	99.061
6831E428/M	1/1	355.2	100.000	21.816	64.937	131.357	709.588	141.362
6831E429/M	1/1	352.3	100.000	22.372	59.530	112.338	366.683	121.459
6831E430/M	1/1	327.7	100.000	41.286	51.707	107.716	354.856	63.548
6831E431/M	1/1	346.8	100.000	24.670	70.298	140.156	855.154	159.013
6831E432/M	1/1	379.0	100.000	28.294	51.367	119.344	482.596	77.374
6831E433/M	1/1	311.2	100.000	29.406	60.446	159.208	621.436	83.218
6831E434/M	1/1	317.5	100.000	23.419	60.234	145.995	853.911	149.087
6831E438/M	1/1	417.3	100.000	57.913	53.588	127.888	664.122	74.962
6831E439/M	1/1	366.9	100.000	39.917	61.461	135.645	513.964	141.525
6831E441/M	1/1	331.1	100.000	28.543	53.307	128.046	802.188	168.772
6831E444/M	1/1	331.1	100.000	21.867	71.456	135.994	594.388	169.279
6831E445/M	1/1	369.9	100.000	25.489	57.436	126.566	960.665	176.125
6831E447/M	1/1	353.4	100.000	51.367	60.368	137.195	767.678	109.896
6831E450/M	1/1	440.7	100.000	29.377	58.894	128.284	625.834	138.063
Standard deviation:		50.7	0.000	10.095	8.553	13.808	193.580	49.938
Number of observ. :		(35)	(34)	(34)	(34)	(34)	(34)	(34)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight

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Study number: FY01013M  
Unscheduled Sacrifices U2  
Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Epididymis	Heart	Kidneys	Liver	Lungs	
6833F504/M	2/1	344.8	18.647	100.000	16.865	58.638	136.197	949.406	164.671
6833F506/M	2/1	299.2	2.354	100.000	16.855	59.652	131.780	631.450	172.787
6833F507/M	2/1	367.4	3.271	100.000	30.029	67.969	140.479	787.744	155.713
6833F509/M	2/1	503.4	4.869	100.000	57.352	64.946	128.822	496.933	83.204
6833F510/M	2/1	314.7	3.841	100.000	21.050	59.310	123.432	437.190	78.464
6833F512/M	2/1	306.8	2.646	100.000	27.273	67.003	133.430	518.182	145.022
6833F514/M	2/1	395.1	2.014	100.000	40.786	57.100	145.317	660.222	93.656
6833F515/M	2/1	352.0	3.269	100.000	33.444	50.403	129.370	709.427	132.117
6833F517/M	2/1	408.0	2.194	100.000	34.314	62.745	139.076	882.633	156.303
6833F518/M	2/1	407.4	3.852	100.000	19.536	65.429	142.181	755.313	129.188
6833F520/M	2/1	324.1	5.447	100.000	25.195	70.088	231.274	804.232	125.827
6833F522/M	2/1	377.2	3.931	100.000	20.518	62.272	138.686	844.535	136.817
6833F527/M	2/1	357.5	3.651	100.000	45.791	60.497	151.826	769.523	101.826
6833F528/M	2/1	309.8	2.302	100.000	32.234	60.649	134.537	506.122	143.119
6833F529/M	2/1	444.5	3.212	100.000	44.234	61.168	131.241	606.813	79.805
6833F530/M	2/1	329.6	2.648	100.000	28.551	62.879	152.961	557.920	104.959
6833F531/M	2/1	355.2	3.873	100.000	29.334	62.494	124.705	491.167	79.594
6833F532/M	2/1	314.7	2.938	100.000	41.908	59.489	123.459	771.195	310.549
6833F533/M	2/1	388.3	2.652	100.000	40.275	91.405	177.358	1157.122	116.503
6833F534/M	2/1	247.0	2.358	100.000	21.626	66.834	119.318	556.297	141.596
6833F537/M	2/1	338.3	2.911	100.000	20.282	45.399	136.197	481.033	193.568
6833F539/M	2/1	269.0	3.162	100.000	24.629	64.447	134.403	454.624	182.607
6833F538/M	2/1	359.2	4.454	100.000	21.312	49.856	104.598	239.655	70.642
6833F540/M	2/1	300.4	3.063	100.000	47.749	59.629	132.854	423.852	135.128
6833F543/M	2/1	325.3	3.065	100.000	16.985	46.432	159.095	703.668	368.141
6833F544/M	2/1	352.7	5.876	100.000	22.075	100.000	138.937	981.298	151.354
6833F545/M	2/1	367.1	5.211	100.000	35.534	77.171	140.546	1014.194	166.055
6833F546/M	2/1	350.7	3.862	100.000	17.101	58.576	207.824	741.775	143.180
6833F548/M	2/1	472.7	4.617	100.000	22.411	64.680	154.370	938.100	123.263
6833F548/M	2/1	354.6	4.007	100.000	29.491	63.350	142.906\$	685.228	144.333
Standard deviation:		56.9	2.992	0.000	10.890	11.255	25.374	212.442	63.668
Number of observ. :		(29)	(29)	(29)	(29)	(29)	(29)	(29)	(29)
6835G604/M	3/1	334.8	4.205	100.000	18.729	57.848	198.924	725.232	596.186
6835G606/M	3/1	411.5	3.558	100.000	30.360	65.342	156.377	827.911	152.311
6835G608/M	3/1	319.0	3.082	100.000	16.074	91.275	145.661	672.736	162.399
6835G611/M	3/1	290.7	4.503	100.000	31.473	57.645	127.674	454.831	133.068
6835G612/M	3/1	317.1	4.548	100.000	17.768	58.134	126.395	642.991	179.887

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight

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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic						
		Brain	Epididymis	Heart	Kidneys	Liver	Lungs	
6835G616/M	350.1	100.000	18.204	68.132	150.693	886.049	139.130	
6835G618/M	333.2	100.000	24.656	66.746	142.945	742.233	173.159	
6835G619/M	321.5	100.000	4.986	64.722	139.840	700.000	115.475	
6835G620/M	334.6	100.000	2.854	65.366	144.910	859.991	188.440	
6835G622/M	312.8	100.000	4.823	57.593	139.446	659.312	167.192	
6835G623/M	381.3	100.000	2.853	50.739	131.890	546.867	89.302	
6835G624/M	310.6	100.000	2.685	54.699	126.256	574.988	123.073	
6835G626/M	347.1	100.000	2.540	57.291	154.892	718.344	118.203	
6835G629/M	316.6	100.000	4.582	56.259	133.349	588.899	124.610	
6835G631/M	362.6	100.000	3.757	71.422	147.171	866.239	175.036	
6835G632/M	323.8	100.000	3.002	58.450	129.395	568.039	127.215	
6835G633/M	420.2	100.000	3.150	54.232	146.506	810.778	93.848	
6835G635/M	307.0	100.000	4.512	63.628	126.419	583.674	90.930	
6835G637/M	326.4	100.000	3.464	51.961	133.469	675.904	170.657	
6835G640/M	291.4	100.000	3.356	56.120	129.714	672.261	187.759	
6835G641/M	349.9	100.000	3.352	66.140	150.671	835.249	116.188	
6835G642/M	334.1	100.000	4.092	71.883	148.676	934.425	167.068	
6835G643/M	407.3	100.000	3.208	51.604	129.789	682.722	75.115	
6835G644/M	353.4	100.000	3.004	65.795	127.907	724.322	142.781	
6835G645/M	323.0	100.000	3.800	58.297	129.774	546.128	76.912	
6835G646/M	356.0	100.000	11.270	65.497	168.512	993.030	167.227	
6835G650/M	341.9	100.000	4.750	65.235	146.185	570.086	78.272	
Mean:	339.9	100.000	3.954	61.928	141.979\$	706.046	153.016	
Standard deviation:	33.5	0.000	1.632	8.381	15.940	134.204	95.551	
Number of observ. :	(27)	(27)	(27)	(27)	(27)	(27)	(27)	
6837H701/M	253.6	100.000	5.114	65.961	204.700	661.725	142.200	
6837H703/M	435.2	100.000	4.348	57.255	145.383	800.537	88.422	
6837H707/M	353.8	100.000	8.611	81.556	160.959	794.276	128.963	
6837H709/M	362.3	100.000	2.395	61.046	163.196	1056.647	137.781	
6837H710/M	305.8	100.000	3.403	57.560	140.593	520.661	112.688	
6837H711/M	358.8	100.000	5.197	61.569	146.977	654.123	88.706	
6837H712/M	348.6	100.000	2.811	44.256	512.361	606.253	80.756	
6837H713/M	301.4	100.000	5.971	62.469	226.091	828.600	126.844	
6837H715/M	365.1	100.000	3.443	62.355	161.424	1049.558	144.439	
6837H716/M	411.5	100.000	3.430	48.502	145.217	713.333	87.391	
6837H719/M	365.4	100.000	2.529	64.340	153.212	771.169	133.030	
6837H720/M	301.7	100.000	2.555	55.834	132.112	719.142	120.878	
6837H721/M	362.5	100.000	3.996	55.368	150.265	666.635	77.660	

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic			
		Brain	Heart	Kidneys	Liver
6837H723/M	333.5	100.000	49.333	141.679	779.852
6837H727/M	304.8	100.000	82.161	149.592	664.016
6837H730/M	334.0	100.000	66.698	128.849	517.480
6837H731/M	304.6	100.000	47.971	134.132	693.203
6837H733/M	298.5	100.000	50.684	122.314	784.814
6837H734/M	316.5	100.000	57.706	153.324	1050.369
6837H737/M	323.8	100.000	71.937	144.862	800.297
6837H738/M	330.4	100.000	67.836	141.472	656.676
6837H740/M	315.5	100.000	57.228	121.295	702.736
6837H742/M	307.8	100.000	56.016	137.867	1076.744
6837H743/M	301.2	100.000	62.273	148.997	560.745
6837H744/M	296.4	100.000	63.973	145.805	679.568
6837H745/M	273.9	100.000	63.184	124.199	379.202
6837H746/M	287.8	100.000	55.556	142.163	608.333
6837H748/M	364.1	100.000	68.152	165.648	995.594
6837H750/M	305.6	100.000	54.399	153.763	788.661
	328.4	100.000	60.454	162.016%	744.171*
Standard deviation:	39.6	0.000	8.911	70.816	172.255
Number of observ. :	(29)	(29)	(29)	(29)	(29)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Rat/F344/N  
 Animal Group/  
 No/sex Subgroup Body wt. (g)  
 Terminal  
 Testes  
 M a l e  
 A n i m a l s  
 Spleen

Animal Group/ No/sex Subgroup	Body wt. (g)	Terminal	Spleen	M a l e A n i m a l s
6831E401/M	1/1	350.8	446.871	148.926
6831E402/M	1/1	375.6		
6831E403/M	1/1	276.1	786.320	144.933
6831E404/M	1/1	494.2	97.087	203.725
6831E405/M	1/1	311.3	381.735	79.614
6831E406/M	1/1	224.4	24.164	117.173
6831E408/M	1/1	312.1	31.069	142.898
6831E409/M	1/1	300.4	175.215	110.554
6831E410/M	1/1	369.2	1003.498	121.993
6831E411/M	1/1	339.4	562.849	79.018
6831E412/M	1/1	331.9	30.191	110.933
6831E414/M	1/1	255.3	23.373	93.634
6831E416/M	1/1	385.4	1086.339	103.597
6831E417/M	1/1	372.5	72.457	144.720
6831E419/M	1/1	359.2	510.964	95.249
6831E420/M	1/1	355.4	428.139	232.829
6831E421/M	1/1	385.2	750.667	122.307
6831E423/M	1/1	381.1	637.143	124.169
6831E424/M	1/1	365.0	406.285	126.032
6831E426/M	1/1	282.1	504.094	111.513
6831E427/M	1/1	294.9	453.365	47.630
6831E428/M	1/1	355.2	98.863	137.568
6831E429/M	1/1	352.3	664.891	116.628
6831E430/M	1/1	327.7	38.310	113.058
6831E431/M	1/1	346.8	34.235	140.177
6831E432/M	1/1	379.0	1183.244	96.971
6831E433/M	1/1	311.2	84.635	233.267
6831E434/M	1/1	317.5	35.941	109.109
6831E438/M	1/1	331.8	438.689	58.361
6831E439/M	1/1	417.3	46.768	173.893
6831E441/M	1/1	366.9	502.021	122.462
6831E444/M	1/1	331.1	658.081	94.878
6831E445/M	1/1	369.9	650.460	161.103
6831E447/M	1/1	353.4	582.583	83.366
6831E450/M	1/1	440.7	185.679	150.970
		346.4	400.477	125.096
Standard deviation:		50.7	332.180	41.734
Number of observ. :		(35)	(34)	(34)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6833F504/M	2/1	344.8	88.483
6833F506/M	2/1	299.2	111.770
6833F507/M	2/1	367.4	112.061
6833F509/M	2/1	503.4	125.122
6833F510/M	2/1	314.7	147.594
6833F512/M	2/1	306.8	74.555
6833F514/M	2/1	395.1	132.427
6833F515/M	2/1	352.0	103.648
6833F517/M	2/1	408.0	157.703
6833F518/M	2/1	407.4	150.209
6833F520/M	2/1	324.1	132.150
6833F522/M	2/1	377.2	115.292
6833F527/M	2/1	357.5	128.144
6833F528/M	2/1	309.8	114.233
6833F529/M	2/1	444.5	226.667
6833F530/M	2/1	329.6	112.133
6833F531/M	2/1	355.2	96.363
6833F532/M	2/1	314.7	131.888
6833F533/M	2/1	388.3	143.664
6833F534/M	2/1	247.0	103.161
6833F537/M	2/1	338.3	86.761
6833F538/M	2/1	369.0	130.283
6833F539/M	2/1	259.2	127.730
6833F540/M	2/1	300.4	112.019
6833F543/M	2/1	325.3	104.975
6833F544/M	2/1	352.7	205.365
6833F545/M	2/1	367.1	109.628
6833F546/M	2/1	350.7	175.125
6833F548/M	2/1	472.7	289.691
Mean:		354.6	132.719
Standard deviation:		56.9	44.754
Number of observ. :		(29)	(29)
6835G604/M	3/1	334.8	166.259
6835G606/M	3/1	411.5	160.028
6835G608/M	3/1	319.0	257.753
6835G611/M	3/1	290.7	119.841
6835G612/M	3/1	317.1	167.323

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Summary Statistics for % Organ to Brain Weight  
 Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Rat/F344/N Study start date: 23-May-01

Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6835G616/M	3/1	350.1	96.369
6835G618/M	3/1	333.2	105.463
6835G619/M	3/1	321.5	133.020
6835G620/M	3/1	334.6	82.445
6835G622/M	3/1	312.8	181.948
6835G623/M	3/1	381.3	142.384
6835G624/M	3/1	310.6	103.879
6835G626/M	3/1	347.1	192.474
6835G629/M	3/1	316.6	75.154
6835G631/M	3/1	362.6	149.215
6835G632/M	3/1	323.8	102.906
6835G633/M	3/1	420.2	336.171
6835G635/M	3/1	307.0	NT
6835G637/M	3/1	326.4	123.637
6835G640/M	3/1	291.4	121.767
6835G641/M	3/1	349.9	157.759
6835G642/M	3/1	334.1	178.527
6835G643/M	3/1	407.3	237.443
6835G644/M	3/1	353.4	133.430
6835G645/M	3/1	323.0	240.067
6835G646/M	3/1	356.0	143.005
6835G650/M	3/1	341.9	147.095
6835G650/M	3/1	339.9	155.975
Standard deviation:	33.5	289.464	59.301
Number of observ. :	(27)	(27)	(26)
6837H701/M	4/1	253.6	216.219
6837H703/M	4/1	435.2	99.756
6837H707/M	4/1	353.8	70.597
6837H709/M	4/1	362.3	94.770
6837H710/M	4/1	305.8	197.132
6837H711/M	4/1	358.8	210.395
6837H712/M	4/1	348.6	146.631
6837H713/M	4/1	301.4	97.642
6837H715/M	4/1	365.1	121.033
6837H716/M	4/1	411.5	173.816
6837H719/M	4/1	365.4	149.975
6837H720/M	4/1	301.7	121.842
6837H721/M	4/1	362.5	299.037

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Summary Statistics for % Organ to Brain Weight  
 Study number: FY01013M  
 Unscheduled Sacrifices U2  
 Rat/F344/N  
 Study start date: 23-May-01  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Testes
6837H723/M	4/1 333.5	766.667	81.877
6837H727/M	4/1 304.8	621.560	119.572
6837H730/M	4/1 334.0	64.851	275.320
6837H731/M	4/1 304.6	251.932	114.719
6837H733/M	4/1 298.5	537.988	95.752
6837H734/M	4/1 316.5	268.882	208.370
6837H737/M	4/1 323.8	775.840	66.502
6837H738/M	4/1 330.4	384.600	127.047
6837H740/M	4/1 315.5	368.263	110.078
6837H742/M	4/1 307.8	764.914	85.187
6837H743/M	4/1 301.2	356.543	201.194
6837H744/M	4/1 296.4	601.750	105.455
6837H745/M	4/1 273.9	22.918	144.603
6837H746/M	4/1 287.8	393.304	62.897
6837H748/M	4/1 364.1	730.045	122.784
6837H750/M	4/1 305.6	473.314	NT
		420.954	140.007
		325.797	61.350
		(29)	(28)
	Mean:		
	Standard deviation:		
	Number of observ. :		

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight

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Rat/F344/N  
Study number: FY01013F  
Study start date: 30-May-01  
Unscheduled Sacrifices U2  
Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6832E453/F	219.3	100.000	44.130	93.970	724.653	109.338	7.951
6832E455/F	279.2	100.000	50.973	98.738	495.055	74.645	6.628
6832E457/F	201.2	100.000	48.846	96.511	401.539	95.895	3.284
6832E459/F	223.0	100.000	48.783	87.934	1013.154	129.001	3.573
6832E465/F	192.6	100.000	45.992	83.755	259.710	52.125	2.905
6832E466/F	237.0	100.000	52.852	90.895	497.384	97.907	6.855
6832E468/F	260.6	100.000	53.819	92.261	398.634	69.702	5.615
6832E469/F	201.9	100.000	51.856	111.408	379.694	89.520	5.076
6832E470/F	239.4	100.000	43.126	87.820	623.314	176.738	4.496
6832E471/F	236.9	100.000	61.147	100.750	621.597	160.611	4.394
6832E474/F	189.3	100.000	49.207	87.463	405.996	100.892	3.072
6832E476/F	259.5	100.000	54.545	106.569	690.541	155.807	1.839
6832E479/F	263.3	100.000	65.777	100.051	506.362	109.338	5.285
6832E481/F	203.4	100.000	43.635	85.707	388.997	66.235	9.924
6832E482/F	250.2	100.000	60.385	114.336	730.851	134.195	3.901
6832E484/F	212.8	100.000	62.552	116.057	536.977	142.835	2.510
6832E485/F	211.2	100.000	56.646	103.475	673.525	124.821	5.626
6832E487/F	226.0	100.000	42.746	87.409	663.627	111.554	3.005
6832E491/F	220.2	100.000	54.323	106.688	416.694	62.425	4.296
6832E488/F	217.6	100.000	51.079	108.731	574.611	119.920	3.011
6832E492/F	186.5	100.000	37.739	75.478	274.113	52.376	3.605
6832E494/F	276.5	100.000	56.398	93.681	428.278	62.085	4.371
6832E496/F	200.1	100.000	61.283	108.537	480.805	130.614	5.003
6832E499/F	248.6	100.000	43.870	91.809	588.730	78.835	5.333
Standard deviation:	227.4	100.000	51.738	97.085	532.285	104.476	4.648
Number of observ. :	27.6	0.000	7.308	10.670	169.006	35.502	1.852
	(24)	(24)	(24)	(24)	(24)	(24)	(24)
6834F552/F	229.7	100.000	58.549	100.155	511.192	131.969	3.420
6834F556/F	225.7	100.000	56.860	92.176	393.516	74.437	1.983
6834F562/F	238.4	100.000	75.072	177.585	656.039	115.072	9.179
6834F565/F	268.4	100.000	49.845	95.549	528.054	60.041	7.091
6834F566/F	226.8	100.000	45.693	93.803	394.433	68.277	5.462
6834F567/F	282.2	100.000	52.692	113.487	616.937	77.156	7.214
6834F568/F	203.6	100.000	41.635	79.237	664.796	99.346	30.245
6834F571/F	211.9	100.000	65.422	101.708	495.678	141.996	3.095
6834F572/F	256.4	100.000	54.461	110.235	483.908	88.287	6.842
6834F577/F	248.1	100.000	47.773	99.386	485.868	119.508	4.967

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight

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Study number: FY01013F  
Unscheduled Sacrifices U2  
Study start date: 30-May-01  
Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Adrenal glands	Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6834F578/F	218.3	3.724	100.000	43.647	96.276	355.696	66.210	4.053
6834F581/F	207.5	3.294	100.000	61.400	104.992	430.160	110.654	5.044
6834F582/F	248.6	4.006	100.000	45.317	90.200	414.131	63.346	3.357
6834F589/F	267.9	3.867	100.000	56.303	100.000	467.906	129.684	7.634
6834F590/F	234.0	3.903	100.000	42.681	103.698	427.016	64.047	7.807
6834F594/F	299.0	2.865	100.000	48.329	97.878	560.743	62.122	5.729
6834F595/F	214.2	4.603	100.000	35.913	83.460	333.435	61.204	5.109
6834F599/F	200.0	4.108	100.000	64.772	110.692	383.906	181.092	8.610
6834F599/F	237.8	3.871%	100.000	52.576	102.806	477.967	95.247	7.047
Standard deviation:	28.3	0.697	0.000	9.979	20.664	98.416	35.306	6.133
Number of observ. :	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
6836G653/F	207.9	4.470	100.000	47.472	75.359	364.875	67.962	6.173
6836G659/F	232.0	2.549	100.000	54.995	108.637	492.560	169.147	3.746
6836G664/F	223.0	2.353	100.000	46.096	98.930	398.342	70.321	2.995
6836G676/F	232.8	3.553	100.000	51.751	102.369	573.121	141.246	4.737
6836G678/F	235.4	3.507	100.000	41.817	104.676	463.018	88.629	6.748
6836G679/F	217.4	3.458	100.000	41.545	98.541	411.129	65.586	3.512
6836G680/F	213.1	2.819	100.000	65.761	109.534	464.172	147.617	1.333
6836G682/F	223.1	3.698	100.000	51.018	93.033	812.862	165.059	16.077
6836G683/F	240.7	2.766	100.000	50.626	91.180	390.031	62.109	8.507
6836G685/F	186.6	3.384	100.000	49.286	88.630	381.438	99.471	1.957
6836G687/F	223.0	4.027	100.000	51.580	109.174	572.834	95.260	3.313
6836G688/F	246.4	3.125	100.000	48.854	109.583	558.229	127.708	5.677
6836G691/F	156.8	5.336	100.000	35.112	72.576	288.812	62.536	4.762
6836G695/F	204.4	3.252	100.000	43.398	94.029	394.612	58.689	3.495
6836G696/F	175.2	3.904	100.000	35.435	78.198	370.090	56.156	5.225
6836G698/F	226.0	2.823	100.000	45.874	104.560	437.785	93.974	4.560
6836G699/F	153.9	3.039	100.000	29.038	67.248	243.106	55.262	5.008
6836G699/F	211.6	3.415	100.000	46.451	94.486	448.060	95.690	5.166
Standard deviation:	27.9	0.741	0.000	8.522	13.862	130.829	39.674	3.311
Number of observ. :	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(17)
6838H751/F	197.9	3.470	100.000	40.694	110.988	1280.442	214.196	3.365
6838H752/F	216.2	3.994	100.000	48.786	116.352	925.742	175.283	17.863
6838H753/F	188.8	4.749	100.000	39.611	142.256	349.487	179.115	3.292
6838H757/F	183.6	1.247	100.000	55.935	97.940	365.799	106.341	6.504
6838H763/F	229.8	4.088	100.000	38.462	95.212	371.221	59.441	4.949
6838H764/F	186.0	3.109	100.000	44.352	82.383	418.031	110.000	4.456

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight

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Study number: FY01013F  
Unscheduled Sacrifices U2  
Study start date: 30-May-01

Rat/F344/N	Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Inhalation/whole-bdy/Chronic					
			Brain	Heart	Kidneys	Liver	Lungs	Ovaries
6838H766/F	4/1	198.3	100.000	66.594	94.369	714.348	126.042	3.032
6838H770/F	4/1	198.8	100.000	66.075	119.623	520.177	124.058	1.441
6838H772/F	4/1	185.1	100.000	49.759	105.832	418.566	105.029	2.461
6838H774/F	4/1	190.1	100.000	40.937	79.614	475.868	114.656	2.810
6838H775/F	4/1	191.6	100.000	49.054	113.933	420.505	103.312	2.839
6838H783/F	4/1	196.1	100.000	43.234	118.807	520.184	65.654	4.587
6838H785/F	4/1	230.0	100.000	45.281	100.106	549.947	133.828	6.787
6838H792/F	4/1	199.7	100.000	57.748	111.796	488.204	128.365	3.539
6838H797/F	4/1	223.3	100.000	54.350	105.507	628.579	146.586	6.057
		201.0+	100.000	49.392	106.315	563.140	126.127	4.932
Standard deviation:		16.0	0.000	9.081	15.804	249.853	40.813	3.897
Number of observ. :		(15)	(15)	(15)	(15)	(15)	(15)	(15)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

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Summary Statistics for % Organ to Brain Weight  
 Study number: FY01013F  
 Unscheduled Sacrifices U2  
 Rat/F344/N  
 Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Female Animals
6832E453/F	219.3	170.811	151.441
6832E455/F	279.2	53.919	NT
6832E457/F	201.2	390.354	26.680
6832E459/F	223.0	1158.933	45.520
6832E465/F	192.6	26.304	46.530
6832E466/F	237.0	394.192	46.886
6832E468/F	260.6	70.258	35.104
6832E469/F	201.9	340.557	69.814
6832E470/F	239.4	439.571	24.098
6832E471/F	236.9	481.886	23.419
6832E474/F	189.3	245.837	22.349
6832E476/F	259.5	771.256	31.372
6832E479/F	263.3	396.665	29.708
6832E481/F	203.4	58.522	NT
6832E482/F	250.2	608.359	23.962
6832E484/F	212.8	95.136	27.458
6832E485/F	211.2	434.253	82.846
6832E487/F	226.0	936.373	42.798
6832E488/F	220.2	34.856	24.579
6832E491/F	217.6	648.821	40.642
6832E492/F	186.5	24.795	39.159
6832E494/F	276.5	45.129	28.278
6832E496/F	200.1	334.203	40.402
6832E499/F	248.6	555.855	35.129
Standard deviation:	227.4	363.202	42.644
Number of observ. :	27.6 (24)	307.168 (24)	28.581 (22)
6834F552/F	229.7	332.383	37.513
6834F556/F	225.7	104.555	836.978
6834F562/F	238.4	55.169	110.531
6834F565/F	268.4	34.627	34.317
6834F566/F	226.8	71.271	396.219
6834F567/F	282.2	159.383	33.246
6834F568/F	203.6	389.264	36.621
6834F571/F	211.9	388.581	25.720
6834F572/F	256.4	913.246	41.544
6834F577/F	248.1	42.652	50.998

Mean:  
 Standard deviation:  
 Number of observ. :

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6834F578/F 2/1	218.3	33.625	39.266
6834F581/F 2/1	207.5	387.494	28.976
6834F582/F 2/1	248.6	90.309	1520.141
6834F589/F 2/1	267.9	326.971	476.745
6834F590/F 2/1	234.0	32.820	NT
6834F594/F 2/1	299.0	28.966	27.162
6834F595/F 2/1	214.2	20.789	87.152
6834F599/F 2/1	200.0	378.897	37.310
	237.8	210.611	224.732
Mean:	28.3	231.151	400.890
Standard deviation:	(18)	(18)	(17)
Number of observ. :			
6836G653/F 3/1	207.9	33.582	37.520
6836G659/F 3/1	232.0	730.541	25.702
6836G664/F 3/1	223.0	68.610	59.733
6836G676/F 3/1	232.8	557.364	69.567
6836G678/F 3/1	235.4	62.380	78.162
6836G679/F 3/1	217.4	28.741	24.203
6836G680/F 3/1	213.1	473.501	40.595
6836G682/F 3/1	223.1	372.508	58.682
6836G683/F 3/1	240.7	24.948	1007.672
6836G685/F 3/1	186.6	319.884	30.354
6836G687/F 3/1	223.0	326.300	29.052
6836G688/F 3/1	246.4	354.740	38.073
6836G691/F 3/1	156.8	19.851	31.325
6836G695/F 3/1	204.4	20.728	21.699
6836G696/F 3/1	175.2	22.342	24.505
6836G698/F 3/1	226.0	246.363	60.532
6836G699/F 3/1	153.9	23.073	14.069
	211.6	216.791	97.144
Standard deviation:	27.9	225.928	235.368
Number of observ. :	(17)	(17)	(17)
6838H751/F 4/1	197.9	69.506	30.336
6838H752/F 4/1	216.2	438.208	138.694
6838H753/F 4/1	188.8	48.516	580.194
6838H757/F 4/1	183.6	277.073	38.482
6838H763/F 4/1	229.8	31.684	1148.575
6838H764/F 4/1	186.0	125.130	35.233

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 %(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

Lovelace Respiratory  
Research Institute

Summary Statistics for % Organ to Brain Weight  
Study number: FY01013F  
Unscheduled Sacrifices U2  
Study start date: 30-May-01

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Rat/F344/N Inhalation/whole-bdy/Chronic

Animal Group/ No/sex Subgroup	Terminal Body wt. (g)	Spleen	Uterus
6838H766/F	4/1 198.3	679.968	36.167
6838H770/F	4/1 198.8	243.459	55.654
6838H772/F	4/1 185.1	131.247	33.173
6838H774/F	4/1 190.1	314.160	37.521
6838H775/F	4/1 191.6	192.114	38.486
6838H783/F	4/1 196.1	38.876	25.803
6838H785/F	4/1 230.0	299.629	38.070
6838H792/F	4/1 199.7	731.796	30.938
6838H797/F	4/1 223.3	391.134	31.828
	Mean:	267.500	153.277
	Standard deviation:	219.343	309.239
	Number of observ. :	(15)	(15)

\*(+) = mean value of group was significantly different from control at P = 0.05(0.01) with Dunnett's test of significance  
 \*(\$ ) = mean value of group was significantly different from control at P = 0.05(0.01) with Modified T test of significance

K-7 Organ Weights for Animals that Died

Lovelace Respiratory  
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Raw Data Listing of Animal Organ Weights  
Study number: FY01013M

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Rat/F344/N		Study start date: 23-May-01				Inhalation/whole-bdy/Chronic							
Animal Group/ No/sex Subgroup	Date of Death	Day of Phase	Date and Time Data Entered	Date Data Taken	No. Oper.	Organ name	Terminal Body wt(g)	Organ Weight (g)	Relative % of Body Weight	Relative Weight % of Brain	Status		
6831E425/M	1/1	10-Feb-03	629/#	11-Feb-03	11:03	10-Feb-03	8	Adrenal glands	434.1	0.100	0.023	4.42	HIGH
				11-Feb-03	11:04	10-Feb-03	8	Brain	2.262	0.521	100.00	100.00	OK
				11-Feb-03	11:04	10-Feb-03	8	Epididymis	0.667	0.154	29.49	29.49	OK
				11-Feb-03	11:04	10-Feb-03	8	Heart	1.971	0.454	87.14	87.14	OK
				11-Feb-03	11:04	10-Feb-03	8	Kidneys	3.767	0.868	166.53	166.53	OK
				11-Feb-03	11:04	10-Feb-03	8	Liver	18.034	4.155	797.26	797.26	HIGH
				11-Feb-03	11:04	10-Feb-03	8	Lungs	2.140	0.493	94.61	94.61	OK
				11-Feb-03	11:04	10-Feb-03	8	Spleen	1.925	0.443	85.10	85.10	OK
				11-Feb-03	11:04	10-Feb-03	8	Testes	3.742	0.862	165.43	165.43	HIGH
				11-Feb-03	11:04	10-Feb-03	8	Testes	0.041	0.011	1.88	1.88	OK
6833F501/M	2/1	24-Feb-03	643/#	16:49	24-Feb-03	128	Adrenal glands	357.8	0.041	0.011	100.00	OK	
				16:49	24-Feb-03	128	Brain	2.183	0.610	100.00	100.00	OK	
				16:52	24-Feb-03	128	Epididymis	0.481	0.134	22.03	22.03	OK	
				16:52	24-Feb-03	128	Heart	1.581	0.442	72.42	72.42	OK	
				16:52	24-Feb-03	128	Kidneys	3.835	1.072	175.68	175.68	OK	
				16:52	24-Feb-03	128	Liver	15.500	4.332	710.03	710.03	HIGH	
				16:52	24-Feb-03	128	Lungs	7.447	2.081	341.14	341.14	OK	
				16:52	24-Feb-03	128	Spleen	10.926	3.054	500.50	500.50	HIGH	
				16:52	24-Feb-03	128	Testes	3.181	0.889	145.72	145.72	HIGH	
				16:52	24-Feb-03	128	Testes	0.054	0.016	2.49	2.49	OK	
6833F503/M	2/1	20-May-03	728/#	12:06	20-May-03	128	Adrenal glands	328.8	0.054	0.016	100.00	OK	
				12:06	20-May-03	128	Brain	2.171	0.660	100.00	100.00	OK	
				12:06	20-May-03	128	Epididymis	0.434	0.132	19.99	19.99	OK	
				12:06	20-May-03	128	Heart	1.477	0.449	68.03	68.03	OK	
				12:06	20-May-03	128	Kidneys	3.483	1.059	160.43	160.43	OK	
				12:06	20-May-03	128	Liver	23.078	7.019	1063.01	1063.01	HIGH	
				12:06	20-May-03	128	Lungs	5.920	1.801	272.69	272.69	OK	
				12:06	20-May-03	128	Spleen	13.861	4.216	638.46	638.46	HIGH	
				12:06	20-May-03	128	Testes	2.396	0.729	110.36	110.36	HIGH	
				12:06	20-May-03	128	Testes	0.143	0.030	6.75	6.75	HIGH	
6833F524/M	2/1	21-Jun-02	395/#	14:28	21-Jun-02	128	Adrenal glands	479.0	0.143	0.030	100.00	LOW	
				14:28	21-Jun-02	128	Brain	2.117	0.442	81.72	81.72	OK	
				14:29	21-Jun-02	128	Epididymis	1.730	0.361	72.46	72.46	OK	
				14:28	21-Jun-02	128	Heart	1.534	0.320	188.05	188.05	OK	
				14:28	21-Jun-02	128	Kidneys	3.981	0.831	888.66	888.66	OK	
				14:29	21-Jun-02	128	Liver	18.813	3.927	143.84	143.84	OK	
				14:29	21-Jun-02	128	Lungs	3.045	0.636	45.77	45.77	OK	
				14:29	21-Jun-02	128	Spleen	0.969	0.202	45.77	45.77	OK	
				14:29	21-Jun-02	128	Testes	3.615	0.755	170.76	170.76	HIGH	
				16:50	07-Mar-03	128	Adrenal glands	379.4	0.070	3.22	3.22	OK	
6833F541/M	2/1	07-Mar-03	654/#	16:50	07-Mar-03	128	Adrenal glands	379.4	0.070	0.018	100.00	OK	
				16:50	07-Mar-03	128	Brain	2.173	0.573	100.00	100.00	OK	
				16:50	07-Mar-03	128	Epididymis	0.527	0.139	24.25	24.25	OK	
				16:50	07-Mar-03	128	Heart	1.490	0.393	68.57	68.57	OK	
				16:50	07-Mar-03	128	Kidneys	3.740	0.986	172.11	172.11	OK	
				16:50	07-Mar-03	128	Liver	19.169	5.052	882.14	882.14	HIGH	
				16:50	07-Mar-03	128	Lungs	3.196	0.842	147.08	147.08	OK	

Note: ! = Quarantine phase; " = Pretest phase; # = Dosing phase

Lovelace Respiratory  
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Raw Data Listing of Animal Organ Weights  
Study number: FY01013M

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Rat/F344/N		Study start date: 23-May-01										Inhalation/whole-bdy/Chronic	
Animal No/sex	Group/ Subgroup	Date of Death	Day of Phase	Date and Data was Entered	Time Entered	Date Taken	Data Oper. No.	Organ name	Terminal Body wt(g)	Organ Weight (g)	Relative % of Body Weight	Relative Weight	Status
6833F541/M	2/1	07-Mar-03	654/#	17-Mar-03	16:50	07-Mar-03	128	Spleen	379.4	2.829	0.746	130.19	HIGH
				17-Mar-03	16:50	07-Mar-03	128	Testes		5.559	1.465	255.82	HIGH
6833F549/M	2/1	20-Feb-03	639/#	21-Feb-03	16:32	20-Feb-03	128	Adrenal glands	288.9	0.085	0.029	4.00	HIGH
				21-Feb-03	16:32	20-Feb-03	128	Brain		2.125	0.736	100.00	OK
				21-Feb-03	16:32	20-Feb-03	128	Epididymis		0.535	0.185	25.18	OK
				21-Feb-03	16:32	20-Feb-03	128	Heart		1.361	0.471	64.05	OK
				21-Feb-03	16:32	20-Feb-03	128	Kidneys		3.486	1.207	164.05	HIGH
				21-Feb-03	16:32	20-Feb-03	128	Liver		13.182	4.563	620.33	HIGH
				21-Feb-03	16:32	20-Feb-03	128	Lungs		4.343	1.503	204.38	OK
				21-Feb-03	16:32	20-Feb-03	128	Spleen		7.839	2.713	368.89	HIGH
				21-Feb-03	16:32	20-Feb-03	128	Testes		3.276	1.134	154.16	HIGH
6835G625/M	3/1	04-Mar-03	651/#	10-Mar-03	17:00	04-Mar-03	128	Adrenal glands	323.9	0.118	0.036	5.60	HIGH
				10-Mar-03	17:00	04-Mar-03	128	Brain		2.106	0.650	100.00	OK
				10-Mar-03	17:00	04-Mar-03	128	Epididymis		0.476	0.147	22.60	OK
				10-Mar-03	17:00	04-Mar-03	128	Heart		1.402	0.433	66.57	OK
				10-Mar-03	17:00	04-Mar-03	128	Kidneys		3.784	1.168	179.68	OK
				10-Mar-03	17:00	04-Mar-03	128	Liver		20.970	6.474	995.73	HIGH
				10-Mar-03	17:00	04-Mar-03	128	Lungs		5.059	1.562	240.22	OK
				10-Mar-03	17:01	04-Mar-03	128	Spleen		9.653	2.980	458.36	HIGH
				10-Mar-03	17:01	04-Mar-03	128	Testes		1.968	0.608	93.45	OK
6835G627/M	3/1	05-Apr-03	683/#	12-May-03	11:30	05-Apr-03	-1	Adrenal glands	372.8	0.180	0.048	8.38	HIGH
				12-May-03	11:30	05-Apr-03	-1	Brain		2.147	0.576	100.00	OK
				12-May-03	11:31	05-Apr-03	-1	Epididymis		0.483	0.130	22.50	OK
				12-May-03	11:31	05-Apr-03	-1	Heart		1.926	0.517	89.71	OK
				12-May-03	11:31	05-Apr-03	-1	Kidneys		5.269	1.414	245.41	HIGH
				12-May-03	11:31	05-Apr-03	-1	Liver		22.671	6.082	1055.94	HIGH
				12-May-03	11:31	05-Apr-03	-1	Lungs		3.727	1.000	173.59	OK
				12-May-03	11:31	05-Apr-03	-1	Spleen		2.248	0.603	104.70	HIGH
				12-May-03	11:31	05-Apr-03	-1	Testes		2.340	0.628	108.99	HIGH
6835G636/M	3/1	02-Feb-03	621/#	03-Feb-03	09:12	02-Feb-03	8	Adrenal glands	297.7	0.133	0.045	6.33	HIGH
				03-Feb-03	09:12	02-Feb-03	8	Brain		2.100	0.705	100.00	OK
				03-Feb-03	09:12	02-Feb-03	8	Epididymis		0.471	0.158	22.43	OK
				03-Feb-03	09:12	02-Feb-03	8	Heart		1.897	0.637	90.33	HIGH
				03-Feb-03	09:12	02-Feb-03	8	Kidneys		3.635	1.221	173.10	HIGH
				03-Feb-03	09:12	02-Feb-03	8	Liver		15.909	5.344	757.57	HIGH
				03-Feb-03	09:12	02-Feb-03	8	Lungs		4.159	1.397	198.05	OK
				03-Feb-03	09:12	02-Feb-03	8	Spleen		5.744	1.929	273.52	HIGH
				03-Feb-03	09:12	02-Feb-03	8	Testes		2.518	0.846	119.90	HIGH
6837H718/M	4/1	19-May-03	727/#	20-May-03	12:52	19-May-03	8	Adrenal glands	349.8	0.112	0.032	5.53	HIGH
				20-May-03	12:52	19-May-03	8	Brain		2.027	0.579	100.00	OK
				20-May-03	12:52	19-May-03	8	Epididymis		0.572	0.164	28.22	OK
				20-May-03	12:52	19-May-03	8	Heart		1.625	0.464	80.17	OK
				20-May-03	12:53	19-May-03	8	Kidneys		4.258	1.217	210.06	HIGH

Note: ! = Quarantine phase; " = Pretest phase; # = Dosing phase

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Raw Data Listing of Animal Organ Weights  
Study number: FY01013M

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Rat/F344/N		Study start date: 23-May-01				Inhalation/whole-bdy/Chronic						
Animal No/sex	Group/ Subgroup	Date of Death	Day of Phase	Date and Time Data was Entered	Date Taken	Oper. No.	Organ name	Terminal Body wt(g)	Organ Weight (g)	Relative % of Body Weight	Relative % of Brain Weight	Status
6837H718/M	4/1	19-May-03	727/#	20-May-03 12:53	19-May-03 12:53	8	Liver	349.8	18.253	5.217	900.49	HIGH
				20-May-03 12:53	19-May-03 12:53	8	Lungs		2.694	0.770	132.91	OK
				20-May-03 12:53	19-May-03 12:53	8	Spleen		0.548	0.157	27.04	LOW
				20-May-03 12:54	19-May-03 12:54	8	Testes		7.728	2.209	381.25	HIGH
6837H732/M	4/1	30-Dec-02	587/#	06-Jan-03 15:52	30-Dec-02 15:52	-1	Adrenal glands	378.8	0.580	0.153	27.19	HIGH
				06-Jan-03 15:52	30-Dec-02 15:52	-1	Brain		2.133	0.563	100.00	OK
				06-Jan-03 15:52	30-Dec-02 15:52	-1	Epididymis		0.823	0.217	38.58	OK
				06-Jan-03 15:52	30-Dec-02 15:52	-1	Heart		1.184	0.313	55.51	OK
				06-Jan-03 15:52	30-Dec-02 15:52	-1	Kidneys		3.589	0.948	168.26	OK
				06-Jan-03 15:52	30-Dec-02 15:52	-1	Liver		15.375	4.059	720.82	HIGH
				06-Jan-03 15:52	30-Dec-02 15:52	-1	Lungs		6.445	1.702	302.16	OK
				06-Jan-03 15:52	30-Dec-02 15:52	-1	Spleen		1.123	0.296	52.65	OK
				06-Jan-03 15:52	30-Dec-02 15:52	-1	Testes		4.587	1.211	215.05	HIGH

Note: ! = Quarantine phase; " = Pretest phase; # = Dosing phase

Lovelace Respiratory Research Institute

Raw Data Listing of Animal Organ Weights  
Study number: FY01013F

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Rat/F344/N		Study start date: 30-May-01				Inhalation/whole-bdy/Chronic						
Animal Group/ No/sex Subgroup	Date of Death	Day of Phase	Date and Data was Entered	Time Date Data Taken	No.	Organ name	Terminal Body wt(g)	Organ Weight (g)	Relative % of Body Weight	Relative Weight	Status	
6832E454/F	1/1	31-Jan-03	612/#	10:43	31-Jan-03	8	Adrenal glands	273.6	0.066	0.024	3.63	HIGH
				10:43	31-Jan-03	8	Brain	1.816	0.664	0.664	100.00	OK
				10:43	31-Jan-03	8	Heart	1.058	0.387	0.387	58.26	OK
				10:43	31-Jan-03	8	Kidneys	1.820	0.665	0.665	100.22	OK
				10:43	31-Jan-03	8	Liver	10.435	3.814	3.814	574.61	OK
				10:43	31-Jan-03	8	Lungs	1.948	0.712	0.712	107.27	OK
				10:43	31-Jan-03	8	Ovaries	0.025	0.009	0.009	1.38	LOW
				10:43	31-Jan-03	8	Spleen	5.293	1.934	1.934	291.46	HIGH
				10:43	31-Jan-03	8	Uterus	0.520	0.190	0.190	28.63	OK
6832E473/F	1/1	17-Mar-03	657/#	13:15	17-Mar-03	128	Adrenal glands	227.3	0.053	0.023	2.76	HIGH
				13:15	17-Mar-03	128	Brain	1.921	0.845	0.845	100.00	OK
				13:15	17-Mar-03	128	Heart	0.703	0.309	0.309	36.60	OK
				13:15	17-Mar-03	128	Kidneys	1.989	0.875	0.875	103.54	OK
				13:15	17-Mar-03	128	Liver	9.117	4.011	4.011	474.60	HIGH
				13:15	17-Mar-03	128	Lungs	1.887	0.830	0.830	98.23	OK
				13:15	17-Mar-03	128	Ovaries	0.041	0.018	0.018	2.13	LOW
				13:15	17-Mar-03	128	Spleen	0.435	0.191	0.191	22.64	LOW
				13:15	17-Mar-03	128	Uterus	0.568	0.250	0.250	29.57	OK
6832E477/F	1/1	07-Jan-03	588/#	16:53	07-Jan-03	128	Adrenal glands	187.7	0.089	0.047	4.57	HIGH
				16:53	07-Jan-03	128	Brain	1.947	1.037	1.037	100.00	HIGH
				16:53	07-Jan-03	128	Heart	1.270	0.677	0.677	65.23	HIGH
				16:53	07-Jan-03	128	Kidneys	2.133	1.136	1.136	109.55	OK
				16:53	07-Jan-03	128	Liver	8.492	4.524	4.524	436.16	HIGH
				16:53	07-Jan-03	128	Lungs	2.651	1.412	1.412	136.16	OK
				16:53	07-Jan-03	128	Ovaries	0.148	0.079	0.079	7.60	HIGH
				16:54	07-Jan-03	128	Spleen	4.814	2.564	2.564	247.25	HIGH
				16:54	07-Jan-03	128	Uterus	0.596	0.317	0.317	30.61	OK
6832E480/F	1/1	29-Mar-03	669/#	12:10	29-Mar-03	128	Adrenal glands	225.3	0.065	0.029	3.47	HIGH
				12:10	29-Mar-03	128	Brain	1.871	0.830	0.830	100.00	OK
				12:11	29-Mar-03	128	Heart	0.850	0.377	0.377	45.43	OK
				12:11	29-Mar-03	128	Kidneys	1.895	0.841	0.841	101.28	OK
				12:11	29-Mar-03	128	Liver	7.095	3.149	3.149	379.21	OK
				12:11	29-Mar-03	128	Lungs	1.998	0.887	0.887	106.79	OK
				12:11	29-Mar-03	128	Ovaries	0.085	0.038	0.038	4.54	OK
				12:11	29-Mar-03	128	Spleen	0.618	0.274	0.274	33.03	OK
				12:11	29-Mar-03	128	Uterus	0.996	0.442	0.442	53.23	OK
6834F576/F	2/1	14-Apr-03	685/#	17:32	14-Apr-03	128	Adrenal glands	212.6	0.307	0.144	16.68	HIGH
				17:32	14-Apr-03	128	Brain	1.841	0.866	0.866	100.00	OK
				17:32	14-Apr-03	128	Heart	1.162	0.547	0.547	63.12	OK
				17:32	14-Apr-03	128	Kidneys	2.148	1.010	1.010	116.68	OK
				17:32	14-Apr-03	128	Liver	12.450	5.856	5.856	676.26	HIGH
				17:32	14-Apr-03	128	Lungs	2.801	1.317	1.317	152.15	OK
				17:32	14-Apr-03	128	Ovaries	0.089	0.042	0.042	4.83	OK

Note: ! = Quarantine phase; " = Pretest phase; # = Dosing phase

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Raw Data Listing of Animal Organ Weights  
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Rat/F344/N		Study start date: 30-May-01										Inhalation/whole-bdy/Chronic		
Animal No/sex	Group/ Subgroup	Date of Death	Day of Phase	Date and Data was Entered	Time Entered	Date Taken	Data Oper. No.	Organ name	Terminal Body wt(g)	Organ Weight (g)	Relative % of Body Weight	Relative Weight	Status	
6834F576/F	2/1	14-Apr-03	685/#	16-Apr-03	17:32	14-Apr-03	128	Spleen	212.6	5.653	2.659	307.06	HIGH	
				16-Apr-03	17:32	14-Apr-03	128	Uterus		1.437	0.676	78.06	OK	
6834F593/F	2/1	24-May-03	725/#	28-May-03	16:49	24-May-03	128	Adrenal glands	257.4	0.034	0.034	4.55	HIGH	
				28-May-03	16:49	24-May-03	128	Brain		1.936	0.752	100.00	OK	
				28-May-03	16:49	24-May-03	128	Heart		0.943	0.366	48.71	OK	
				28-May-03	16:49	24-May-03	128	Kidneys		2.335	0.907	120.61	OK	
				28-May-03	16:49	24-May-03	128	Liver		11.281	4.383	582.70	HIGH	
				28-May-03	16:49	24-May-03	128	Lungs		1.948	0.757	100.62	OK	
				28-May-03	16:49	24-May-03	128	Ovaries		0.073	0.028	3.77	LOW	
				28-May-03	16:49	24-May-03	128	Spleen		0.543	0.211	28.05	OK	
				28-May-03	16:49	24-May-03	128	Uterus		0.617	0.240	31.87	OK	
6836G665/F	3/1	22-Oct-02	511/#	07-Nov-02	14:00	22-Oct-02	-1	Adrenal glands	191.0	0.049	0.026	2.36	HIGH	
				07-Nov-02	14:00	22-Oct-02	-1	Brain		2.078	1.088	100.00	HIGH	
				07-Nov-02	14:00	22-Oct-02	-1	Heart		0.718	0.376	34.55	OK	
				07-Nov-02	14:00	22-Oct-02	-1	Kidneys		1.758	0.921	84.60	OK	
				07-Nov-02	14:00	22-Oct-02	-1	Liver		8.383	4.390	403.42	HIGH	
				07-Nov-02	14:01	22-Oct-02	-1	Lungs		1.958	1.025	94.23	OK	
				07-Nov-02	14:01	22-Oct-02	-1	Ovaries		0.109	0.057	5.25	OK	
				07-Nov-02	14:01	22-Oct-02	-1	Spleen		0.355	0.186	17.08	LOW	
				13-Nov-02	10:26	22-Oct-02	-1	Uterus		0.425	0.223	20.45	OK	
6836G671/F	3/1	28-Nov-02	548/#	12-Dec-02	13:42	28-Nov-02	128	Adrenal glands	240.6	0.057	0.024	3.06	HIGH	
				12-Dec-02	13:42	28-Nov-02	128	Brain		1.865	0.775	100.00	OK	
				12-Dec-02	13:42	28-Nov-02	128	Heart		0.757	0.315	40.59	OK	
				12-Dec-02	13:42	28-Nov-02	128	Kidneys		1.615	0.671	86.60	OK	
				12-Dec-02	13:42	28-Nov-02	128	Liver		9.343	3.883	500.97	OK	
				12-Dec-02	13:42	28-Nov-02	128	Lungs		1.155	0.480	61.93	OK	
				12-Dec-02	13:42	28-Nov-02	128	Ovaries		0.080	0.033	4.29	OK	
				12-Dec-02	13:42	28-Nov-02	128	Spleen		0.740	0.308	39.68	OK	
				12-Dec-02	13:42	28-Nov-02	128	Uterus		17.380	7.224	931.90	OK	
6836G693/F	3/1	18-Mar-03	658/#	25-Mar-03	13:12	18-Mar-03	128	Adrenal glands	260.8	6.989	2.679	359.89	HIGH	
				25-Mar-03	13:12	18-Mar-03	128	Brain		1.942	0.745	100.00	OK	
				25-Mar-03	13:12	18-Mar-03	128	Heart		0.965	0.370	49.69	OK	
				25-Mar-03	13:12	18-Mar-03	128	Kidneys		2.331	0.894	120.03	OK	
				25-Mar-03	13:12	18-Mar-03	128	Liver		9.754	3.740	502.27	OK	
				25-Mar-03	13:12	18-Mar-03	128	Lungs		3.655	1.401	188.21	OK	
				25-Mar-03	13:12	18-Mar-03	128	Ovaries		0.093	0.036	4.79	OK	
				25-Mar-03	13:13	18-Mar-03	128	Spleen		0.471	0.181	24.25	LOW	
				25-Mar-03	13:13	18-Mar-03	128	Uterus		0.677	0.260	34.86	OK	
6838H786/F	4/1	15-May-03	716/#	19-May-03	16:24	15-May-03	128	Adrenal glands	240.4	0.071	0.030	3.79	HIGH	
				19-May-03	16:24	15-May-03	128	Brain		1.872	0.779	100.00	OK	
				19-May-03	16:24	15-May-03	128	Heart		1.175	0.489	62.77	OK	
				19-May-03	16:24	15-May-03	128	Kidneys		1.803	0.750	96.31	OK	
				19-May-03	16:24	15-May-03	128	Liver		7.592	3.158	405.56	OK	

Note: ! = Quarantine phase; " = Pretest phase; # = Dosing phase

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Rat/F344/N		Study start date: 30-May-01				Inhalation/whole-bdy/Chronic							
Animal No/sex	Group/ Subgroup	Date of Death	Day of Phase	Date and Data was Entered	Time Data Taken	Date Data Oper.	No.	Organ name	Terminal Body wt(g)	Organ Weight (g)	Relative % of Body Weight	Relative % of Brain Weight	Status
6838H786	F 4/1	15-May-03	716/#	19-May-03	16:24	15-May-03	128	Lungs	240.4	1.793	0.746	95.78	OK
				19-May-03	16:24	15-May-03	128	Ovaries		0.106	0.044	5.66	OK
				19-May-03	16:24	15-May-03	128	Spleen		1.116	0.464	59.62	OK
				19-May-03	16:24	15-May-03	128	Uterus		32.243	13.412	1722.38	OK
6838H795	F 4/1	15-May-03	716/#	19-May-03	16:22	15-May-03	128	Adrenal glands	219.8	0.068	0.031	3.51	HIGH
				19-May-03	16:22	15-May-03	128	Brain		1.938	0.882	100.00	OK
				19-May-03	16:22	15-May-03	128	Heart		0.857	0.390	44.22	OK
				19-May-03	16:22	15-May-03	128	Kidneys		2.363	1.075	121.93	OK
				19-May-03	16:22	15-May-03	128	Liver		9.829	4.472	507.17	HIGH
				19-May-03	16:22	15-May-03	128	Lungs		2.250	1.024	116.10	OK
				19-May-03	16:22	15-May-03	128	Ovaries		0.077	0.035	3.97	OK
				19-May-03	16:22	15-May-03	128	Spleen		0.457	0.208	23.58	OK
				19-May-03	16:22	15-May-03	128	Uterus		0.555	0.253	28.64	OK

Note: ! = Quarantine phase; " = Pretest phase; # = Dosing phase

APPENDIX L

DIFFERENTIAL CELL COUNTS AND  
WHITE BLOOD CELL COUNT ESTIMATES

- L-1 12-Month Males
- L-2 12-Month Females
- L-3 18-Month Males
- L-4 18-Month Females
- L-5 24-Month Males
- L-6 24-Month Females

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

L-1 12-Month Males

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	BAND			MONO-			BASO-			ATYPICAL			NUCLEA- TED RBC (#/100 WBC)	WBC		ABSOLUTE NEUTROPHILS (nX103 cells/µl)
		NEUTRO- PHILS (%)	NEUTRO- PHILS (%)	LYMPHO- CYTES (%)	MONO- CYTES (%)	EOSINO- PHILS (%)	BASO- PHILS (%)	ATYPICAL LYMPHS (%)	BLASTS (%)	ESTIMATE (nX103 cells/µl)	ABSOLUTE NEUTROPHILS (nX103 cells/µl)						
CONTROL	E401-6831	38	0	55	4	3	0	0	0	0	0	0	0	14.0	5.3		
CONTROL	E402-6831	30	0	67	1	2	0	0	0	0	0	0	0	18.0	5.4		
CONTROL	E403-6831	21	0	74	4	1	0	0	0	0	0	1	1	10.0	2.1		
CONTROL	E404-6831	22	0	73	4	1	0	0	0	0	0	0	0	7.0	1.5		
CONTROL	E405-6831	16	0	82	2	0	0	0	0	0	0	0	0	6.0	1.0		
CONTROL	E406-6831	29	0	65	4	2	0	0	0	0	0	0	0	8.0	2.3		
CONTROL	E407-6831	33	1	59	4	3	0	0	0	0	0	1	1	10.0	3.3		
CONTROL	E409-6831	21	0	78	1	0	0	0	0	0	0	0	2	7.0	1.5		
CONTROL	E410-6831	22	0	75	2	1	0	0	0	0	0	0	1	6.0	1.3		
CONTROL	E411-6831	28	0	71	0	1	0	0	0	0	0	0	1	10.0	2.8		
CONTROL	E412-6831	31	0	67	1	1	0	0	0	0	0	0	0	4.0	1.2		
CONTROL	E413-6831	26	0	72	2	0	0	0	0	0	0	0	2	7.0	1.8		
CONTROL	E414-6831	33	0	61	4	2	0	0	0	0	0	0	0	10.0	3.3		
CONTROL	E415-6831	26	0	67	5	2	0	0	0	0	0	0	0	4.0	1.0		
CONTROL	E416-6831	41	0	56	3	0	0	0	0	0	0	0	0	8.0	3.3		
CONTROL	E417-6831	24	0	72	1	3	0	0	0	0	0	0	0	7.0	1.7		
CONTROL	E418-6831	44	0	51	3	2	0	0	0	0	0	0	0	8.0	3.5		
CONTROL	E419-6831	38	0	59	0	3	0	0	0	0	0	0	0	20.0	7.2		
CONTROL	E420-6831	36	0	61	3	0	0	0	0	0	0	0	0	6.0	2.6		
CONTROL	E421-6831	44	0	47	4	4	1	0	0	0	0	0	0	8.0	2.2		
CONTROL	E422-6831	27	0	71	1	1	0	0	0	0	0	0	0	12.0	3.5		
CONTROL	E423-6831	29	0	62	4	5	0	0	0	0	0	0	0	15.0	7.1		
CONTROL	E424-6831	47	0	45	5	3	0	0	0	0	0	0	0	6.0	1.6		
CONTROL	E425-6831	27	0	68	4	1	0	0	0	0	0	0	2	6.0	1.6		

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND (nX103 cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX103 cells/ $\mu$ l)	ABSOLUTE LYMPHOCYTES (nX103 cells/ $\mu$ l)	ABSOLUTE MONOCYTES (nX103 cells/ $\mu$ l)	ABSOLUTE EOSINOPHILS (nX103 cells/ $\mu$ l)	ABSOLUTE BASOPHILS (nX103 cells/ $\mu$ l)	ABSOLUTE ATYPICAL LYMPHS (nX103 cells/ $\mu$ l)	ABSOLUTE BLASTS (nX103 cells/ $\mu$ l)	POLYCHRO-MASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
CONTROL	E401-6831	0.0	7.7	0.6	0.4	0.0	0.0	0.0	0.0	2	0
CONTROL	E402-6831	0.0	12.1	0.2	0.4	0.0	0.0	0.0	0.0	2	0
CONTROL	E403-6831	0.0	7.4	0.4	0.1	0.0	0.0	0.0	0.0	2	0
CONTROL	E404-6831	0.0	5.1	0.3	0.1	0.0	0.0	0.0	0.0	2	0
CONTROL	E405-6831	0.0	4.9	0.1	0.0	0.0	0.0	0.0	0.0	2	0
CONTROL	E406-6831	0.0	5.2	0.3	0.2	0.0	0.0	0.0	0.0	2	0
CONTROL	E407-6831	0.1	5.9	0.4	0.3	0.0	0.0	0.0	0.0	2	0
CONTROL	E409-6831	0.0	5.5	0.1	0.0	0.0	0.0	0.0	0.0	2	0
CONTROL	E410-6831	0.0	4.5	0.1	0.1	0.0	0.0	0.0	0.0	2	0
CONTROL	E411-6831	0.0	7.1	0.0	0.1	0.0	0.0	0.0	0.0	2	0
CONTROL	E412-6831	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	2	0
CONTROL	E413-6831	0.0	5.0	0.1	0.0	0.0	0.0	0.0	0.0	2	0
CONTROL	E414-6831	0.0	6.1	0.4	0.2	0.0	0.0	0.0	0.0	2	0
CONTROL	E415-6831	0.0	2.7	0.2	0.1	0.0	0.0	0.0	0.0	2	0
CONTROL	E416-6831	0.0	4.5	0.2	0.0	0.0	0.0	0.0	0.0	1	0
CONTROL	E417-6831	0.0	5.0	0.1	0.2	0.0	0.0	0.0	0.0	2	0
CONTROL	E418-6831	0.0	4.1	0.2	0.2	0.0	0.0	0.0	0.0	1	0
CONTROL	E419-6831									2	0
CONTROL	E420-6831	0.0	12.2	0.6	0.0	0.0	0.0	0.0	0.0	1	0
CONTROL	E421-6831	0.0	2.8	0.2	0.2	0.1	0.0	0.0	0.0	1	0
CONTROL	E422-6831	0.0	5.7	0.1	0.1	0.0	0.0	0.0	0.0	2	0
CONTROL	E423-6831	0.0	7.4	0.5	0.6	0.0	0.0	0.0	0.0	1	0
CONTROL	E424-6831	0.0	6.8	0.8	0.5	0.0	0.0	0.0	0.0	1	0
CONTROL	E425-6831	0.0	4.1	0.2	0.1	0.0	0.0	0.0	0.0	1	0

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E401-6831	ADEQUATE	
CONTROL	E402-6831	ADEQUATE	
CONTROL	E403-6831	ADEQUATE	
CONTROL	E404-6831	ADEQUATE	
CONTROL	E405-6831	ADEQUATE	
CONTROL	E406-6831	ADEQUATE	
CONTROL	E407-6831	ADEQUATE	
CONTROL	E409-6831	ADEQUATE	
CONTROL	E410-6831	ADEQUATE	
CONTROL	E411-6831	ADEQUATE	
CONTROL	E412-6831	ADEQUATE	
CONTROL	E413-6831	ADEQUATE	
CONTROL	E414-6831		
CONTROL	E415-6831	ADEQUATE	
CONTROL	E416-6831	ADEQUATE	
CONTROL	E417-6831	ADEQUATE	
CONTROL	E418-6831	ADEQUATE	
CONTROL	E419-6831	ADEQUATE	The smear was too thick for a WBC estimate to be made
CONTROL	E420-6831	ADEQUATE	
CONTROL	E421-6831	ADEQUATE	
CONTROL	E422-6831	ADEQUATE	
CONTROL	E423-6831	ADEQUATE	
CONTROL	E424-6831	ADEQUATE	
CONTROL	E425-6831	ADEQUATE	

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	BAND				CYTES (%)				PHILS (%)				BLASTS (%)		NUCLEATED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)
		NEUTRO-PHILS (%)	NEUTRO-PHILS (%)	LYMPHO-CYTES (%)	LYMPHO-CYTES (%)	MONO-CYTES (%)	MONO-CYTES (%)	EOSINO-PHILS (%)	EOSINO-PHILS (%)	BASO-PHILS (%)	BASO-PHILS (%)	ATYPICAL LYMPHS (%)	ATYPICAL LYMPHS (%)					
CONTROL	E426-6831	21	0	69	8	2	0	0	0	0	0	0	0	1	8.0	1.7		
CONTROL	E427-6831	40	0	54	6	0	0	0	0	0	0	0	0	0	10.4	4.2		
CONTROL	E428-6831	44	0	50	5	1	0	0	0	0	0	0	0	0	9.2	4.0		
CONTROL	E429-6831	25	0	70	4	1	0	0	0	0	0	0	0	0	10.0	2.5		
CONTROL	E430-6831	22	0	75	3	0	0	0	0	0	0	0	0	0	10.0	2.2		
CONTROL	E431-6831	46	0	46	5	3	0	0	0	0	0	0	0	0	19.3	8.9		
CONTROL	E432-6831	28	0	68	3	1	0	0	0	0	0	0	0	0	12.0	3.4		
CONTROL	E433-6831	31	0	66	2	1	0	0	0	0	0	0	2	0	14.0	4.3		
CONTROL	E434-6831	32	0	61	2	5	0	0	0	0	0	0	0	0	14.5	4.6		
CONTROL	E435-6831	34	0	60	4	2	0	0	0	0	0	0	0	0	14.4	4.9		
CONTROL	E436-6831	27	0	66	5	2	0	0	0	0	0	0	0	0	14.0	3.8		
CONTROL	E437-6831	31	0	64	4	1	0	0	0	0	0	0	0	0	10.4	3.2		
CONTROL	E439-6831	36	0	59	4	1	0	0	0	0	0	0	0	0	12.8	4.6		
CONTROL	E440-6831	30	0	62	4	4	0	0	0	0	0	0	0	0	14.4	4.3		
CONTROL	E441-6831	21	0	72	4	3	0	0	0	0	0	0	2	0	6.0	1.3		
CONTROL	E442-6831	22	0	75	3	0	0	0	0	0	0	0	1	0	9.2	2.0		
CONTROL	E443-6831	37	0	57	3	3	0	0	0	0	0	0	0	0	12.8	4.7		
CONTROL	E444-6831	28	0	69	2	1	0	0	0	0	0	0	0	0	14.8	4.1		
CONTROL	E445-6831	27	0	69	3	1	0	0	0	0	0	0	0	0	10.5	2.8		
CONTROL	E446-6831	35	0	59	5	1	0	0	0	0	0	0	0	0	9.6	3.4		
CONTROL	E447-6831	28	0	65	5	2	0	0	0	0	0	0	0	0	8.0	2.2		
CONTROL	E448-6831	36	0	61	3	0	0	0	0	0	0	0	0	0	10.4	3.7		
CONTROL	E449-6831	27	0	65	3	4	1	0	0	0	0	0	0	0	15.2	4.1		
CONTROL	E450-6831	41	0	54	4	1	0	0	0	0	0	0	0	0	10.4	4.3		
HIGH	H701-6837	48	1	44	4	3	0	0	0	0	0	0	0	0	13.2	6.3		

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX103 cells/µl)	ABSOLUTE LYMPHOCYTES (nX103 cells/µl)	ABSOLUTE MONOCYTES (nX103 cells/µl)	ABSOLUTE EOSINOPHILS (nX103 cells/µl)	ABSOLUTE BASOPHILS (nX103 cells/µl)	ABSOLUTE ATYPICAL LYMPHS (nX103 cells/µl)	ABSOLUTE BLASTS (nX103 cells/µl)	POLYCHRO-MASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
CONTROL	E426-6831	0.0	5.5	0.6	0.2	0.0	0.0	0.0	1	0
CONTROL	E427-6831	0.0	5.6	0.6	0.0	0.0	0.0	0.0	1	0
CONTROL	E428-6831	0.0	4.6	0.5	0.1	0.0	0.0	0.0	1	0
CONTROL	E429-6831	0.0	7.0	0.4	0.1	0.0	0.0	0.0	1	0
CONTROL	E430-6831	0.0	7.5	0.3	0.0	0.0	0.0	0.0	1	0
CONTROL	E431-6831	0.0	8.9	1.0	0.6	0.0	0.0	0.0	1	0
CONTROL	E432-6831	0.0	8.2	0.4	0.1	0.0	0.0	0.0	1	0
CONTROL	E433-6831	0.0	9.2	0.3	0.1	0.0	0.0	0.0	1	0
CONTROL	E434-6831	0.0	8.8	0.3	0.7	0.0	0.0	0.0	1	0
CONTROL	E435-6831	0.0	8.6	0.6	0.3	0.0	0.0	0.0	1	0
CONTROL	E436-6831	0.0	9.2	0.7	0.3	0.0	0.0	0.0	1	0
CONTROL	E437-6831	0.0	6.7	0.4	0.1	0.0	0.0	0.0	1	0
CONTROL	E439-6831	0.0	7.6	0.5	0.1	0.0	0.0	0.0	1	0
CONTROL	E440-6831	0.0	8.9	0.6	0.6	0.0	0.0	0.0	1	0
CONTROL	E441-6831	0.0	4.3	0.2	0.2	0.0	0.0	0.0	1	0
CONTROL	E442-6831	0.0	6.9	0.3	0.0	0.0	0.0	0.0	1	0
CONTROL	E443-6831	0.0	7.3	0.4	0.4	0.0	0.0	0.0	1	0
CONTROL	E444-6831	0.0	10.2	0.3	0.1	0.0	0.0	0.0	1	0
CONTROL	E445-6831	0.0	7.2	0.3	0.1	0.0	0.0	0.0	1	0
CONTROL	E446-6831	0.0	5.7	0.5	0.1	0.0	0.0	0.0	1	0
CONTROL	E447-6831	0.0	5.2	0.4	0.2	0.0	0.0	0.0	1	0
CONTROL	E448-6831	0.0	6.3	0.3	0.0	0.0	0.0	0.0	1	0
CONTROL	E449-6831	0.0	9.9	0.5	0.6	0.2	0.0	0.0	1	0
CONTROL	E450-6831	0.0	5.6	0.4	0.1	0.0	0.0	0.0	1	0
HIGH	H701-6837	0.1	5.8	0.5	0.4	0.0	0.0	0.0	1	0

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E426-6831	ADEQUATE	
CONTROL	E427-6831	ADEQUATE	
CONTROL	E428-6831	ADEQUATE	
CONTROL	E429-6831	ADEQUATE	
CONTROL	E430-6831	ADEQUATE	
CONTROL	E431-6831	ADEQUATE	
CONTROL	E432-6831	ADEQUATE	
CONTROL	E433-6831	ADEQUATE	
CONTROL	E434-6831	ADEQUATE	
CONTROL	E435-6831	ADEQUATE	
CONTROL	E436-6831	ADEQUATE	
CONTROL	E437-6831	ADEQUATE	
CONTROL	E439-6831	ADEQUATE	
CONTROL	E440-6831	ADEQUATE	
CONTROL	E441-6831	ADEQUATE	
CONTROL	E442-6831	ADEQUATE	
CONTROL	E443-6831	ADEQUATE	
CONTROL	E444-6831	ADEQUATE	
CONTROL	E445-6831	ADEQUATE	
CONTROL	E446-6831	ADEQUATE	
CONTROL	E447-6831	ADEQUATE	
CONTROL	E448-6831	ADEQUATE	
CONTROL	E449-6831	ADEQUATE	1 macrophage was observed.
CONTROL	E450-6831	ADEQUATE	
HIGH	H701-6837	ADEQUATE	

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	BAND				MONO-				EOSINO-				BASO-		ATYPICAL		BLASTS (%)	NUCLEATED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)
		NEUTRO-PHILS (%)	NEUTRO-PHILS (%)	LYMPHO-CYTES (%)	LYMPHO-CYTES (%)	CYTES (%)	PHILS (%)														
HIGH	H702-6837	45	0	51	2	2	0	0	0	0	0	0	0	0	0	0	0	0	19.2	8.6	
HIGH	H703-6837	22	0	70	3	5	0	0	0	0	0	0	0	0	0	0	0	0	11.2	2.5	
HIGH	H704-6837	34	0	62	1	2	1	0	0	0	0	0	0	0	0	0	0	1	14.0	4.8	
HIGH	H705-6837	39	1	57	3	0	0	0	0	0	0	0	0	0	0	0	0	0	17.2	6.7	
HIGH	H706-6837	44	0	49	2	4	1	0	0	0	0	0	0	0	0	0	0	0	18.8	8.3	
HIGH	H707-6837	35	0	55	3	6	1	0	0	0	0	0	0	0	0	0	0	1	22.4	7.8	
HIGH	H708-6837	29	0	65	3	3	0	0	0	0	0	0	0	0	0	0	0	1	22.8	6.6	
HIGH	H709-6837	41	1	51	3	4	0	0	0	0	0	0	0	0	0	0	0	0	23.6	9.7	
HIGH	H710-6837	26	0	68	4	1	1	0	0	0	0	0	0	0	0	0	0	0	19.2	5.0	
HIGH	H711-6837	34	0	64	2	0	0	0	0	0	0	0	0	0	0	0	0	1	15.2	5.2	
HIGH	H712-6837	27	0	68	2	3	0	0	0	0	0	0	0	0	0	0	0	0	20.8	5.6	
HIGH	H713-6837	44	1	50	3	2	0	0	0	0	0	0	0	0	0	0	0	0	29.6	13.0	
HIGH	H714-6837	35	0	62	3	0	0	0	0	0	0	0	0	0	0	0	0	0	22.0	7.7	
HIGH	H715-6837	43	0	50	4	3	0	0	0	0	0	0	0	0	0	0	0	0	8.8	3.8	
HIGH	H716-6837	42	0	53	2	3	0	0	0	0	0	0	0	0	0	0	0	0	20.4	8.6	
HIGH	H717-6837	39	0	55	3	3	0	0	0	0	0	0	0	0	0	0	0	1	15.6	6.1	
HIGH	H718-6837	42	2	51	1	4	0	0	0	0	0	0	0	0	0	0	0	0	17.6	7.4	
HIGH	H719-6837	42	0	53	2	3	0	0	0	0	0	0	0	0	0	0	0	0	16.8	7.1	
HIGH	H720-6837	32	0	61	6	1	0	0	0	0	0	0	0	0	0	0	0	0	13.2	4.2	
HIGH	H721-6837	38	0	55	4	3	0	0	0	0	0	0	0	0	0	0	0	1	15.6	5.9	
HIGH	H722-6837	47	0	47	5	1	0	0	0	0	0	0	0	0	0	0	0	0	17.6	8.3	
HIGH	H723-6837	46	0	50	3	1	0	0	0	0	0	0	0	0	0	0	0	2	21.2	9.8	
HIGH	H724-6837	43	0	54	1	2	0	0	0	0	0	0	0	0	0	0	0	0	16.8	7.2	
HIGH	H725-6837	37	0	57	5	1	0	0	0	0	0	0	0	0	0	0	0	0	16.0	5.9	
HIGH	H726-6837	41	0	51	3	4	1	0	0	0	0	0	0	0	0	0	0	0	18.8	7.7	

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX103 cells/µl)	ABSOLUTE LYMPHOCYTES (nX103 cells/µl)	ABSOLUTE MONOCYTES (nX103 cells/µl)	ABSOLUTE EOSINOPHILS (nX103 cells/µl)	ABSOLUTE BASOPHILS (nX103 cells/µl)	ABSOLUTE ATYPICAL LYMPHS (nX103 cells/µl)	ABSOLUTE BLASTS (nX103 cells/µl)	POLYCHRO-MASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
HIGH	H702-6837	0.0	9.8	0.4	0.4	0.0	0.0	0.0	1	0
HIGH	H703-6837	0.0	7.8	0.3	0.6	0.0	0.0	0.0	1	0
HIGH	H704-6837	0.0	8.7	0.1	0.3	0.1	0.0	0.0	1	0
HIGH	H705-6837	0.2	9.8	0.5	0.0	0.0	0.0	0.0	1	0
HIGH	H706-6837	0.0	9.2	0.4	0.8	0.2	0.0	0.0	1	0
HIGH	H707-6837	0.0	12.3	0.7	1.3	0.2	0.0	0.0	1	0
HIGH	H708-6837	0.0	14.8	0.7	0.7	0.0	0.0	0.0	1	0
HIGH	H709-6837	0.2	12.0	0.7	0.9	0.0	0.0	0.0	1	0
HIGH	H710-6837	0.0	13.1	0.8	0.2	0.2	0.0	0.0	1	0
HIGH	H711-6837	0.0	9.7	0.3	0.0	0.0	0.0	0.0	1	0
HIGH	H712-6837	0.0	14.1	0.4	0.6	0.0	0.0	0.0	1	0
HIGH	H713-6837	0.3	14.8	0.9	0.6	0.0	0.0	0.0	1	0
HIGH	H714-6837	0.0	13.6	0.7	0.0	0.0	0.0	0.0	1	0
HIGH	H715-6837	0.0	4.4	0.4	0.3	0.0	0.0	0.0	1	0
HIGH	H716-6837	0.0	10.8	0.4	0.6	0.0	0.0	0.0	1	0
HIGH	H717-6837	0.0	8.6	0.5	0.5	0.0	0.0	0.0	1	0
HIGH	H718-6837	0.4	9.0	0.2	0.7	0.0	0.0	0.0	1	0
HIGH	H719-6837	0.0	8.9	0.3	0.5	0.0	0.0	0.0	1	0
HIGH	H720-6837	0.0	8.1	0.8	0.1	0.0	0.0	0.0	1	0
HIGH	H721-6837	0.0	8.6	0.6	0.5	0.0	0.0	0.0	1	0
HIGH	H722-6837	0.0	8.3	0.9	0.2	0.0	0.0	0.0	1	0
HIGH	H723-6837	0.0	10.6	0.6	0.2	0.0	0.0	0.0	1	0
HIGH	H724-6837	0.0	9.1	0.2	0.3	0.0	0.0	0.0	1	0
HIGH	H725-6837	0.0	9.1	0.8	0.2	0.0	0.0	0.0	1	0
HIGH	H726-6837	0.0	9.6	0.6	0.8	0.2	0.0	0.0	1	0

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
HIGH	H702-6837	ADEQUATE	
HIGH	H703-6837	ADEQUATE	
HIGH	H704-6837	ADEQUATE	
HIGH	H705-6837	ADEQUATE	
HIGH	H706-6837	ADEQUATE	
HIGH	H707-6837	ADEQUATE	
HIGH	H708-6837	ADEQUATE	
HIGH	H709-6837	ADEQUATE	
HIGH	H710-6837	ADEQUATE	
HIGH	H711-6837	ADEQUATE	
HIGH	H712-6837	ADEQUATE	
HIGH	H713-6837	ADEQUATE	
HIGH	H714-6837	ADEQUATE	
HIGH	H715-6837	ADEQUATE	
HIGH	H716-6837	ADEQUATE	
HIGH	H717-6837	ADEQUATE	
HIGH	H718-6837	ADEQUATE	
HIGH	H719-6837	ADEQUATE	
HIGH	H720-6837	ADEQUATE	
HIGH	H721-6837	ADEQUATE	
HIGH	H722-6837	ADEQUATE	
HIGH	H723-6837	ADEQUATE	
HIGH	H724-6837	ADEQUATE	
HIGH	H725-6837	ADEQUATE	
HIGH	H726-6837	ADEQUATE	

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	BAND			MONO-			EOSINO-			BASO-			ATYPICAL			BLASTS (%)	NUCLEATED RBC (#/100 WBC)	WBC		ABSOLUTE NEUTROPHILS (nX103 cells/ $\mu$ l)
		NEUTRO-PHILS (%)	NEUTRO-PHILS (%)	LYMPHO-CYTES (%)	MONO-CYTES (%)	EOSINO-PHILS (%)	EOSINO-PHILS (%)	BASO-PHILS (%)	BASO-PHILS (%)	ATYPICAL LYMPHS (%)	ATYPICAL LYMPHS (%)	ATYPICAL LYMPHS (%)	WBC ESTIMATE (nX103 cells/ $\mu$ l)								
HIGH	H727-6837	42	0	54	4	0	0	0	0	0	0	0	0	0	0	0	22.0	9.2			
HIGH	H728-6837	31	1	59	6	3	0	0	0	0	0	0	0	0	0	0	11.6	3.6			
HIGH	H729-6837	41	0	52	2	5	0	0	0	0	0	0	0	0	0	0	14.8	6.1			
HIGH	H730-6837	57	0	37	3	3	0	0	0	0	0	0	0	0	0	0	20.0	11.4			
HIGH	H731-6837	52	0	46	1	1	0	0	0	0	0	0	0	0	0	0	12.0	6.2			
HIGH	H732-6837	42	0	52	5	1	0	0	0	0	0	0	0	0	0	0	16.0	6.7			
HIGH	H733-6837	28	0	67	2	3	0	0	0	0	0	0	0	0	0	0	22.8	6.4			
HIGH	H734-6837	42	0	48	7	2	1	0	0	0	0	0	0	0	1	0	22.4	9.4			
HIGH	H735-6837	46	0	49	3	2	0	0	0	0	0	0	0	0	0	0	18.8	8.6			
HIGH	H736-6837	41	0	56	2	1	0	0	0	0	0	0	0	0	0	0	17.6	7.2			
HIGH	H737-6837	34	0	63	3	0	0	0	0	0	0	0	0	0	0	0	10.8	3.7			
HIGH	H738-6837	45	0	50	3	2	0	0	0	0	0	0	0	0	0	0	16.0	7.2			
HIGH	H739-6837	38	1	54	3	4	0	0	0	0	0	0	0	0	0	0	19.2	7.3			
HIGH	H740-6837	28	2	63	5	2	0	0	0	0	0	0	0	0	0	0	16.0	4.5			
HIGH	H741-6837	34	0	63	3	0	0	0	0	0	0	0	0	0	0	0	16.8	5.7			
HIGH	H742-6837	31	0	63	5	1	0	0	0	0	0	0	0	0	0	0	15.6	4.8			
HIGH	H743-6837	26	0	67	5	2	0	0	0	0	0	0	0	0	0	0	15.2	4.0			
HIGH	H744-6837	32	0	60	6	2	0	0	0	0	0	0	0	0	0	0	15.0	4.8			
HIGH	H745-6837	42	0	50	5	3	0	0	0	0	0	0	0	0	0	0	14.8	6.2			
HIGH	H746-6837	31	0	62	7	0	0	0	0	0	0	0	0	0	1	0	15.4	4.8			
HIGH	H747-6837	47	0	41	7	5	0	0	0	0	0	0	0	0	0	0	26.2	12.3			
HIGH	H748-6837	57	0	37	4	2	0	0	0	0	0	0	0	0	0	0	23.2	13.2			
HIGH	H749-6837	29	0	62	9	0	0	0	0	0	0	0	0	0	2	0	14.0	4.1			
HIGH	H750-6837	34	0	61	4	1	0	0	0	0	0	0	0	0	0	0	13.2	4.5			

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX103 cells/µl)	ABSOLUTE LYMPHOCYTES (nX103 cells/µl)	ABSOLUTE MONOCYTES (nX103 cells/µl)	ABSOLUTE EOSINOPHILS (nX103 cells/µl)	ABSOLUTE BASOPHILS (nX103 cells/µl)	ABSOLUTE ATYPICAL LYMPHS (nX103 cells/µl)	ABSOLUTE BLASTS (nX103 cells/µl)	POLYCHRO-MASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
HIGH	H727-6837	0.0	11.9	0.9	0.0	0.0	0.0	0.0	1	0
HIGH	H728-6837	0.1	6.8	0.7	0.3	0.0	0.0	0.0	1	0
HIGH	H729-6837	0.0	7.7	0.3	0.7	0.0	0.0	0.0	1	0
HIGH	H730-6837	0.0	7.4	0.6	0.6	0.0	0.0	0.0	1	0
HIGH	H731-6837	0.0	5.5	0.1	0.1	0.0	0.0	0.0	1	0
HIGH	H732-6837	0.0	8.3	0.8	0.2	0.0	0.0	0.0	1	0
HIGH	H733-6837	0.0	15.3	0.5	0.7	0.0	0.0	0.0	1	0
HIGH	H734-6837	0.0	10.8	1.6	0.4	0.2	0.0	0.0	1	0
HIGH	H735-6837	0.0	9.2	0.6	0.4	0.0	0.0	0.0	1	0
HIGH	H736-6837	0.0	9.9	0.4	0.2	0.0	0.0	0.0	1	0
HIGH	H737-6837	0.0	6.8	0.3	0.0	0.0	0.0	0.0	1	0
HIGH	H738-6837	0.0	8.0	0.5	0.3	0.0	0.0	0.0	1	0
HIGH	H739-6837	0.2	10.4	0.6	0.8	0.0	0.0	0.0	1	0
HIGH	H740-6837	0.3	10.1	0.8	0.3	0.0	0.0	0.0	1	0
HIGH	H741-6837	0.0	10.6	0.5	0.0	0.0	0.0	0.0	1	0
HIGH	H742-6837	0.0	9.8	0.8	0.2	0.0	0.0	0.0	1	0
HIGH	H743-6837	0.0	10.2	0.8	0.3	0.0	0.0	0.0	1	0
HIGH	H744-6837	0.0	9.0	0.9	0.3	0.0	0.0	0.0	1	0
HIGH	H745-6837	0.0	7.4	0.7	0.4	0.0	0.0	0.0	1	0
HIGH	H746-6837	0.0	9.5	1.1	0.0	0.0	0.0	0.0	1	0
HIGH	H747-6837	0.0	10.7	1.8	1.3	0.0	0.0	0.0	1	0
HIGH	H748-6837	0.0	8.6	0.9	0.5	0.0	0.0	0.0	1	1
HIGH	H749-6837	0.0	8.7	1.3	0.0	0.0	0.0	0.0	1	0
HIGH	H750-6837	0.0	8.1	0.5	0.1	0.0	0.0	0.0	1	0

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
HIGH	H727-6837	ADEQUATE	
HIGH	H728-6837	ADEQUATE	
HIGH	H729-6837	ADEQUATE	
HIGH	H730-6837	ADEQUATE	
HIGH	H731-6837	ADEQUATE	
HIGH	H732-6837	ADEQUATE	
HIGH	H733-6837	ADEQUATE	
HIGH	H734-6837	ADEQUATE	
HIGH	H735-6837	ADEQUATE	
HIGH	H736-6837	ADEQUATE	
HIGH	H737-6837	ADEQUATE	
HIGH	H738-6837	ADEQUATE	
HIGH	H739-6837	ADEQUATE	
HIGH	H740-6837	ADEQUATE	
HIGH	H741-6837	ADEQUATE	
HIGH	H742-6837	ADEQUATE	
HIGH	H743-6837	ADEQUATE	
HIGH	H744-6837	ADEQUATE	
HIGH	H745-6837	ADEQUATE	
HIGH	H746-6837	ADEQUATE	
HIGH	H747-6837	ADEQUATE	
HIGH	H748-6837	ADEQUATE	
HIGH	H749-6837	ADEQUATE	
HIGH	H750-6837	ADEQUATE	

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

L-2 12-Month Females

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	BAND				MONO- EOSINO- BASO- ATYPICAL				NUCLEA- TED RBC (#/100 WBC)	WBC	
		NEUTRO- PHILS (%)	LYMPHO- CYTES (%)	PHILS (%)	PHILS (%)	PHILS (%)	PHILS (%)	LYMPHS (%)	BLASTS (%)		ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)
CONTROL	E451-6832	16	79	0	4	1	0	0	0	0	8.0	1.3
CONTROL	E452-6833	20	73	0	5	2	0	0	0	0	11.2	2.2
CONTROL	E453-6832	23	73	0	2	2	0	0	0	2	9.6	2.2
CONTROL	E454-6832	16	83	0	0	1	0	0	0	1	12.7	2.0
CONTROL	E455-6832	19	75	0	4	1	1	0	0	0	8.8	1.7
CONTROL	E456-6832	18	75	0	7	0	0	0	0	1	6.8	1.2
CONTROL	E457-6832	21	78	0	1	0	0	0	0	0	8.6	1.8
CONTROL	E458-6832	31	67	0	2	0	0	0	0	0	8.4	2.6
CONTROL	E459-6832	18	79	0	1	2	0	0	0	0	5.2	0.9
CONTROL	E460-6832	35	57	0	6	2	0	0	0	0	8.0	2.8
CONTROL	E461-6832	24	72	0	2	2	0	0	0	0	12.4	3.0
CONTROL	E462-6832	8	90	0	2	0	0	0	0	0	4.4	0.4
CONTROL	E463-6832	24	70	0	4	2	0	0	0	2	5.8	1.4
CONTROL	E464-6832	18	78	0	3	1	0	0	0	0	6.4	1.2
CONTROL	E465-6832	27	64	0	7	2	0	0	0	1	8.4	2.3
CONTROL	E466-6832	28	65	0	6	1	0	0	0	0	9.6	2.7
CONTROL	E467-6832	26	66	0	5	2	1	0	0	0	8.0	2.1
CONTROL	E468-6832	21	74	0	4	1	0	0	0	0	6.6	1.4
CONTROL	E469-6832	15	76	0	5	4	0	0	0	0	8.4	1.3
CONTROL	E470-6832	26	69	0	1	4	0	0	0	0	8.8	2.3
CONTROL	E471-6832	40	56	0	3	1	0	0	0	0	9.2	3.7
CONTROL	E472-6832	36	62	0	2	0	0	0	0	1	7.6	2.7
CONTROL	E473-6832	24	65	0	4	6	1	0	0	0	8.4	2.0
CONTROL	E474-6832	23	72	0	2	2	1	0	0	0	8.0	1.8

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHRO-MASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
CONTROL	E451-6832	0.0	6.3	0.3	0.1	0.0	0.0	0.0	1	0
CONTROL	E452-6833	0.0	8.2	0.6	0.2	0.0	0.0	0.0	1	0
CONTROL	E453-6832	0.0	7.0	0.2	0.2	0.0	0.0	0.0	1	0
CONTROL	E454-6832	0.0	10.5	0.0	0.1	0.0	0.0	0.0	1	0
CONTROL	E455-6832	0.0	6.6	0.4	0.1	0.1	0.0	0.0	1	0
CONTROL	E456-6832	0.0	5.1	0.5	0.0	0.0	0.0	0.0	1	0
CONTROL	E457-6832	0.0	6.7	0.1	0.0	0.0	0.0	0.0	1	0
CONTROL	E458-6832	0.0	5.6	0.2	0.0	0.0	0.0	0.0	1	0
CONTROL	E459-6832	0.0	4.1	0.1	0.1	0.0	0.0	0.0	1	0
CONTROL	E460-6832	0.0	4.6	0.5	0.2	0.0	0.0	0.0	1	0
CONTROL	E461-6832	0.0	8.9	0.2	0.2	0.0	0.0	0.0	1	0
CONTROL	E462-6832	0.0	4.0	0.1	0.0	0.0	0.0	0.0	1	0
CONTROL	E463-6832	0.0	4.1	0.2	0.1	0.0	0.0	0.0	1	0
CONTROL	E464-6832	0.0	5.0	0.2	0.1	0.0	0.0	0.0	1	0
CONTROL	E465-6832	0.0	5.4	0.6	0.2	0.0	0.0	0.0	1	0
CONTROL	E466-6832	0.0	6.2	0.6	0.1	0.0	0.0	0.0	1	0
CONTROL	E467-6832	0.0	5.3	0.4	0.2	0.1	0.0	0.0	1	0
CONTROL	E468-6832	0.0	4.9	0.3	0.1	0.0	0.0	0.0	1	0
CONTROL	E469-6832	0.0	6.4	0.4	0.3	0.0	0.0	0.0	1	0
CONTROL	E470-6832	0.0	6.1	0.4	0.4	0.0	0.0	0.0	1	0
CONTROL	E471-6832	0.0	5.2	0.3	0.1	0.0	0.0	0.0	1	0
CONTROL	E472-6832	0.0	4.7	0.2	0.0	0.0	0.0	0.0	1	0
CONTROL	E473-6832	0.0	5.5	0.3	0.5	0.1	0.0	0.0	0	0
CONTROL	E474-6832	0.0	5.8	0.2	0.2	0.1	0.0	0.0	1	0

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)
CONTROL	E451-6832	ADEQUATE
CONTROL	E452-6833	ADEQUATE
CONTROL	E453-6832	ADEQUATE
CONTROL	E454-6832	ADEQUATE
CONTROL	E455-6832	ADEQUATE
CONTROL	E456-6832	ADEQUATE
CONTROL	E457-6832	ADEQUATE
CONTROL	E458-6832	ADEQUATE
CONTROL	E459-6832	ADEQUATE
CONTROL	E460-6832	ADEQUATE
CONTROL	E461-6832	ADEQUATE
CONTROL	E462-6832	DECREASED
CONTROL	E463-6832	ADEQUATE
CONTROL	E464-6832	ADEQUATE
CONTROL	E465-6832	ADEQUATE
CONTROL	E466-6832	ADEQUATE
CONTROL	E467-6832	ADEQUATE
CONTROL	E468-6832	ADEQUATE
CONTROL	E469-6832	ADEQUATE
CONTROL	E470-6832	ADEQUATE
CONTROL	E471-6832	ADEQUATE
CONTROL	E472-6832	ADEQUATE
CONTROL	E473-6832	ADEQUATE
CONTROL	E474-6832	ADEQUATE

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	BAND				MONO- EOSINO- BASO- ATYPICAL				NUCLEA- TED RBC (#/100 WBC)	WBC	
		NEUTRO- PHILS (%)	NEUTRO- PHILS (%)	LYMPHO- CYTES (%)	LYMPHO- CYTES (%)	PHILS (%)	PHILS (%)	PHILS (%)	LYMPHS (%)		BLASTS (%)	ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)
CONTROL	E475-6832	34	0	63	1	2	0	0	0	0	8.0	2.7
CONTROL	E476-6832	21	0	70	6	3	0	0	0	0	11.2	2.4
CONTROL	E477-6832	18	0	78	3	1	0	0	0	0	9.6	1.7
CONTROL	E478-6832	32	0	64	3	1	0	0	0	0	10.0	3.2
CONTROL	E479-6832	18	0	76	5	1	0	0	0	0	11.2	2.0
CONTROL	E480-6832	17	0	75	6	2	0	0	0	0	10.8	1.8
CONTROL	E482-6832	17	0	77	6	0	0	0	0	0	8.4	1.4
CONTROL	E483-6832	20	0	73	5	2	0	0	0	0	8.8	1.8
CONTROL	E484-6832	14	0	78	6	1	1	0	0	1	11.6	1.6
CONTROL	E485-6832	20	0	77	3	0	0	0	0	0	8.8	1.8
CONTROL	E486-6832	21	0	76	2	1	0	0	0	0	9.6	2.0
CONTROL	E487-6832	28	0	68	2	2	0	0	0	0	6.8	1.9
CONTROL	E488-6832	20	0	76	2	2	0	0	0	1	6.8	1.4
CONTROL	E489-6832	15	0	81	4	0	0	0	0	0	8.0	1.2
CONTROL	E490-6832	22	0	72	4	1	1	0	0	0	10.0	2.2
CONTROL	E491-6832	28	0	70	2	0	0	0	0	0	7.2	2.0
CONTROL	E492-6832	12	0	86	1	1	0	0	0	4	4.8	0.6
CONTROL	E493-6832	35	0	58	5	2	0	0	0	0	12.0	4.2
CONTROL	E494-6832	18	0	75	7	0	0	0	0	1	6.8	1.2
CONTROL	E495-6832	37	0	55	7	1	0	0	0	0	11.2	4.1
CONTROL	E496-6832	25	0	70	3	1	1	0	0	0	13.6	3.4
CONTROL	E497-6832	35	0	58	4	3	0	0	0	0	8.8	3.1
CONTROL	E498-6832	38	0	58	3	0	1	0	0	0	13.2	5.0
CONTROL	E499-6832	23	0	71	4	2	0	0	0	0	12.0	2.8
CONTROL	E500-6832	15	0	79	2	4	0	0	0	0	8.4	1.3

**LRRR Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
CONTROL	E475-6832	0.0	5.0	0.1	0.2	0.0	0.0	0.0	0	0
CONTROL	E476-6832	0.0	7.8	0.7	0.3	0.0	0.0	0.0	1	0
CONTROL	E477-6832	0.0	7.5	0.3	0.1	0.0	0.0	0.0	1	0
CONTROL	E478-6832	0.0	6.4	0.3	0.1	0.0	0.0	0.0	1	0
CONTROL	E479-6832	0.0	8.5	0.6	0.1	0.0	0.0	0.0	1	0
CONTROL	E480-6832	0.0	8.1	0.6	0.2	0.0	0.0	0.0	1	0
CONTROL	E482-6832	0.0	6.5	0.5	0.0	0.0	0.0	0.0	1	0
CONTROL	E483-6832	0.0	6.4	0.4	0.2	0.0	0.0	0.0	1	0
CONTROL	E484-6832	0.0	9.0	0.7	0.1	0.1	0.0	0.0	1	0
CONTROL	E485-6832	0.0	6.8	0.3	0.0	0.0	0.0	0.0	1	0
CONTROL	E486-6832	0.0	7.3	0.2	0.1	0.0	0.0	0.0	1	0
CONTROL	E487-6832	0.0	4.6	0.1	0.1	0.0	0.0	0.0	1	0
CONTROL	E488-6832	0.0	5.2	0.1	0.1	0.0	0.0	0.0	1	0
CONTROL	E489-6832	0.0	6.5	0.3	0.0	0.0	0.0	0.0	1	0
CONTROL	E490-6832	0.0	7.2	0.4	0.1	0.1	0.0	0.0	1	0
CONTROL	E491-6832	0.0	5.0	0.1	0.0	0.0	0.0	0.0	1	0
CONTROL	E492-6832	0.0	4.1	0.0	0.0	0.0	0.0	0.0	1	0
CONTROL	E493-6832	0.0	7.0	0.6	0.2	0.0	0.0	0.0	1	0
CONTROL	E494-6832	0.0	5.1	0.5	0.0	0.0	0.0	0.0	1	0
CONTROL	E495-6832	0.0	6.2	0.8	0.1	0.0	0.0	0.0	1	0
CONTROL	E496-6832	0.0	9.5	0.4	0.1	0.1	0.0	0.0	1	0
CONTROL	E497-6832	0.0	5.1	0.4	0.3	0.0	0.0	0.0	1	0
CONTROL	E498-6832	0.0	7.7	0.4	0.0	0.1	0.0	0.0	1	0
CONTROL	E499-6832	0.0	8.5	0.5	0.2	0.0	0.0	0.0	1	0
CONTROL	E500-6832	0.0	6.6	0.2	0.3	0.0	0.0	0.0	1	0

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)
CONTROL	E475-6832	ADEQUATE
CONTROL	E476-6832	ADEQUATE
CONTROL	E477-6832	ADEQUATE
CONTROL	E478-6832	ADEQUATE
CONTROL	E479-6832	ADEQUATE
CONTROL	E480-6832	ADEQUATE
CONTROL	E482-6832	ADEQUATE
CONTROL	E483-6832	ADEQUATE
CONTROL	E484-6832	ADEQUATE
CONTROL	E485-6832	ADEQUATE
CONTROL	E486-6832	ADEQUATE
CONTROL	E487-6832	ADEQUATE
CONTROL	E488-6832	ADEQUATE
CONTROL	E489-6832	ADEQUATE
CONTROL	E490-6832	ADEQUATE
CONTROL	E491-6832	ADEQUATE
CONTROL	E492-6832	DECREASED
CONTROL	E493-6832	ADEQUATE
CONTROL	E494-6832	ADEQUATE
CONTROL	E495-6832	ADEQUATE
CONTROL	E496-6832	ADEQUATE
CONTROL	E497-6832	ADEQUATE
CONTROL	E498-6832	ADEQUATE
CONTROL	E499-6832	ADEQUATE
CONTROL	E500-6832	ADEQUATE

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	BAND		NEUTRO-PHILS (%)		LYMPHO-CYTES (%)		MONO-CYTES (%)		EOSINO-PHILS (%)		BASO-PHILS (%)		ATYPICAL LYMPHS (%)		BLASTS (%)		NUCLEATED RBC (#/100 WBC)		WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)		ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)	
		NEUTRO-PHILS (%)	NEUTRO-PHILS (%)	LYMPHO-CYTES (%)	LYMPHO-CYTES (%)	MONO-CYTES (%)	MONO-CYTES (%)	EOSINO-PHILS (%)	EOSINO-PHILS (%)	BASO-PHILS (%)	BASO-PHILS (%)	ATYPICAL LYMPHS (%)	ATYPICAL LYMPHS (%)	BLASTS (%)	BLASTS (%)	NUCLEATED RBC (#/100 WBC)	NUCLEATED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)		
HIGH	H751-6838	26	0	70	1	3	0	0	0	0	0	0	0	0	0	0	0	6.8	1.8	6.8	1.8		
HIGH	H752-6838	21	0	74	3	2	0	0	0	0	0	0	0	0	0	2	0	6.0	1.3	6.0	1.3		
HIGH	H753-6838	27	0	67	5	1	0	0	0	0	0	0	0	0	0	0	0	7.6	2.1	7.6	2.1		
HIGH	H754-6838	31	0	65	3	1	0	0	0	0	0	0	0	0	0	0	0	9.2	2.9	9.2	2.9		
HIGH	H755-6838	33	2	61	3	1	0	0	0	0	0	0	0	0	0	0	0	10.8	3.6	10.8	3.6		
HIGH	H756-6838	22	0	71	3	3	1	0	0	0	0	0	0	0	0	0	0	8.8	1.9	8.8	1.9		
HIGH	H757-6838	31	0	59	7	3	0	0	0	0	0	0	0	0	0	0	0	5.6	1.7	5.6	1.7		
HIGH	H758-6838	27	0	67	5	1	0	0	0	0	0	0	0	0	0	0	0	10.8	2.9	10.8	2.9		
HIGH	H759-6838	24	0	74	0	2	0	0	0	0	0	0	0	0	0	0	0	4.8	1.2	4.8	1.2		
HIGH	H760-6838	18	0	74	6	2	0	0	0	0	0	0	0	0	0	1	0	7.6	1.4	7.6	1.4		
HIGH	H761-6838	22	0	70	6	2	0	0	0	0	0	0	0	0	0	0	0	6.8	1.5	6.8	1.5		
HIGH	H762-6838	28	0	65	5	2	0	0	0	0	0	0	0	0	0	0	0	7.2	2.0	7.2	2.0		
HIGH	H763-6838	29	0	64	4	3	0	0	0	0	0	0	0	0	0	0	0	5.2	1.5	5.2	1.5		
HIGH	H764-6838	26	0	69	4	1	0	0	0	0	0	0	0	0	0	0	0	10.8	2.8	10.8	2.8		
HIGH	H765-6838	21	0	71	4	4	0	0	0	0	0	0	0	0	0	0	0	5.4	1.1	5.4	1.1		
HIGH	H766-6838	22	0	72	3	3	0	0	0	0	0	0	0	0	0	0	0	8.8	1.9	8.8	1.9		
HIGH	H767-6838	20	0	74	6	0	0	0	0	0	0	0	0	0	0	0	0	7.2	1.4	7.2	1.4		
HIGH	H768-6838	21	0	74	4	1	0	0	0	0	0	0	0	0	0	0	0	6.0	1.3	6.0	1.3		
HIGH	H769-6838	27	0	72	0	1	0	0	0	0	0	0	0	0	0	0	0	11.2	3.0	11.2	3.0		
HIGH	H770-6838	41	0	58	1	0	0	0	0	0	0	0	0	0	0	1	0	7.6	3.1	7.6	3.1		
HIGH	H771-6838	37	0	61	1	1	0	0	0	0	0	0	0	0	0	0	0	8.0	3.0	8.0	3.0		
HIGH	H772-6838	21	0	73	5	1	0	0	0	0	0	0	0	0	0	0	0	10.0	2.9	10.0	2.9		
HIGH	H773-6838	29	0	65	5	1	0	0	0	0	0	0	0	0	0	0	0	9.6	3.3	9.6	3.3		
HIGH	H774-6838	34	0	58	4	4	0	0	0	0	0	0	0	0	0	1	0	10.0	2.1	10.0	2.1		
HIGH	H775-6838	21	0	73	4	2	0	0	0	0	0	0	0	0	0	0	0	10.0	2.1	10.0	2.1		

**LRR Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
HIGH	H751-6838	0.0	4.8	0.1	0.2	0.0	0.0	0.0	1	0
HIGH	H752-6838	0.0	4.4	0.2	0.1	0.0	0.0	0.0	1	0
HIGH	H753-6838	0.0	5.1	0.4	0.1	0.0	0.0	0.0	1	0
HIGH	H754-6838	0.0	6.0	0.3	0.1	0.0	0.0	0.0	1	0
HIGH	H755-6838	0.2	6.6	0.3	0.1	0.0	0.0	0.0	1	0
HIGH	H756-6838	0.0	6.2	0.3	0.3	0.1	0.0	0.0	1	0
HIGH	H757-6838	0.0	3.3	0.4	0.2	0.0	0.0	0.0	1	0
HIGH	H758-6838	0.0	7.2	0.5	0.1	0.0	0.0	0.0	1	0
HIGH	H759-6838	0.0	3.6	0.0	0.1	0.0	0.0	0.0	1	0
HIGH	H760-6838	0.0	5.6	0.5	0.2	0.0	0.0	0.0	1	0
HIGH	H761-6838	0.0	4.8	0.4	0.1	0.0	0.0	0.0	1	0
HIGH	H762-6838	0.0	4.7	0.4	0.1	0.0	0.0	0.0	1	0
HIGH	H763-6838	0.0	3.3	0.2	0.2	0.0	0.0	0.0	1	0
HIGH	H764-6838	0.0	7.5	0.4	0.1	0.0	0.0	0.0	1	0
HIGH	H765-6838	0.0	3.8	0.2	0.2	0.0	0.0	0.0	1	0
HIGH	H766-6838	0.0	6.3	0.3	0.3	0.0	0.0	0.0	1	0
HIGH	H767-6838	0.0	5.3	0.4	0.0	0.0	0.0	0.0	1	0
HIGH	H768-6838	0.0	4.4	0.2	0.1	0.0	0.0	0.0	1	0
HIGH	H769-6838	0.0	8.1	0.0	0.1	0.0	0.0	0.0	1	0
HIGH	H770-6838	0.0	4.4	0.1	0.0	0.0	0.0	0.0	1	0
HIGH	H771-6838	0.0	4.9	0.1	0.1	0.0	0.0	0.0	1	0
HIGH	H772-6838								1	0
HIGH	H773-6838	0.0	6.5	0.5	0.1	0.0	0.0	0.0	1	0
HIGH	H774-6838	0.0	5.6	0.4	0.4	0.0	0.0	0.0	1	0
HIGH	H775-6838	0.0	7.3	0.4	0.2	0.0	0.0	0.0	1	0

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)
HIGH	H751-6838	ADEQUATE
HIGH	H752-6838	ADEQUATE
HIGH	H753-6838	ADEQUATE
HIGH	H754-6838	ADEQUATE
HIGH	H755-6838	ADEQUATE
HIGH	H756-6838	ADEQUATE
HIGH	H757-6838	ADEQUATE
HIGH	H758-6838	ADEQUATE
HIGH	H759-6838	ADEQUATE
HIGH	H760-6838	ADEQUATE
HIGH	H761-6838	ADEQUATE
HIGH	H762-6838	ADEQUATE
HIGH	H763-6838	ADEQUATE
HIGH	H764-6838	ADEQUATE
HIGH	H765-6838	ADEQUATE
HIGH	H766-6838	ADEQUATE
HIGH	H767-6838	ADEQUATE
HIGH	H768-6838	ADEQUATE
HIGH	H769-6838	ADEQUATE
HIGH	H770-6838	ADEQUATE
HIGH	H771-6838	ADEQUATE
HIGH	H772-6838	ADEQUATE
HIGH	H773-6838	ADEQUATE
HIGH	H774-6838	ADEQUATE
HIGH	H775-6838	ADEQUATE

**LRR Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	BAND			MONO-			EOSINO-			BASO-			ATYPICAL			BLASTS (%)	NUCLEATED RBC (#/100 WBC)	WBC	
		NEUTRO-PHILS (%)	LYMPHO-CYTES (%)	LYMPHO-CYTES (%)	CYTES (%)	PHILS (%)	ESTIMATE (x10 <sup>3</sup> cells/μl)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/μl)												
HIGH	H776-6838	18	0	74	4	4	4	0	0	0	0	0	0	0	0	0	9.6	1.7		
HIGH	H777-6838	26	0	66	7	1	1	0	0	0	0	0	0	0	0	0	7.8	2.0		
HIGH	H778-6838	22	0	74	3	1	1	0	0	0	0	0	0	0	0	0	6.8	1.5		
HIGH	H779-6838	31	0	64	0	5	5	0	0	0	0	0	0	0	0	0	8.2	2.5		
HIGH	H780-6838	33	0	56	6	5	5	0	0	0	0	0	0	0	0	0	10.4	3.4		
HIGH	H781-6838	18	0	77	5	0	0	0	0	0	0	0	0	0	0	0	10.0	1.8		
HIGH	H782-6838	17	0	77	4	2	2	0	0	0	0	0	0	0	0	0	8.4	1.4		
HIGH	H783-6838	27	0	70	2	1	1	0	0	0	0	0	0	0	0	0	9.6	2.6		
HIGH	H784-6838	17	0	82	0	1	1	0	0	0	0	0	0	0	0	0	8.8	1.5		
HIGH	H785-6838	30	0	65	3	2	2	0	0	0	0	0	0	0	0	0	10.2	3.1		
HIGH	H786-6838	25	0	70	4	1	1	0	0	0	0	0	0	0	0	0	8.0	2.0		
HIGH	H787-6838	39	0	55	5	1	1	0	0	0	0	0	0	0	0	0	10.8	4.2		
HIGH	H788-6838	22	0	70	4	4	4	0	0	0	0	0	0	0	1	1	7.2	1.6		
HIGH	H789-6838	31	0	59	9	1	1	0	0	0	0	0	0	0	1	1	10.2	3.2		
HIGH	H790-6838	20	0	76	1	3	3	0	0	0	0	0	0	0	1	1	8.8	1.8		
HIGH	H791-6838	36	0	55	5	4	4	0	0	0	0	0	0	0	0	0	12.0	4.3		
HIGH	H792-6838	21	0	75	1	3	3	0	0	0	0	0	0	0	0	0	10.0	2.1		
HIGH	H793-6838	15	0	76	7	2	2	0	0	0	0	0	0	0	0	0	8.8	1.3		
HIGH	H794-6838	24	0	73	3	0	0	0	0	0	0	0	0	0	1	1	8.0	1.9		
HIGH	H795-6838	34	0	56	8	2	2	0	0	0	0	0	0	0	2	2	10.8	3.7		
HIGH	H796-6838	38	0	53	5	4	4	0	0	0	0	0	0	0	1	1	8.8	3.3		
HIGH	H797-6838	29	0	68	3	0	0	0	0	0	0	0	0	0	0	0	8.0	2.3		
HIGH	H798-6838	29	0	68	2	1	1	0	0	0	0	0	0	0	0	0	8.8	2.6		
HIGH	H799-6838	25	0	65	7	3	3	0	0	0	0	0	0	0	0	0	8.4	2.1		
HIGH	H800-6838	26	0	68	4	2	2	0	0	0	0	0	0	0	1	1	9.8	2.5		

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
HIGH	H776-6838	0.0	7.1	0.4	0.4	0.0	0.0	0.0	1	0
HIGH	H777-6838	0.0	5.1	0.5	0.1	0.0	0.0	0.0	1	0
HIGH	H778-6838	0.0	5.0	0.2	0.1	0.0	0.0	0.0	1	0
HIGH	H779-6838	0.0	5.2	0.0	0.4	0.0	0.0	0.0	1	0
HIGH	H780-6838	0.0	5.8	0.6	0.5	0.0	0.0	0.0	1	0
HIGH	H781-6838	0.0	7.7	0.5	0.0	0.0	0.0	0.0	1	0
HIGH	H782-6838	0.0	6.5	0.3	0.2	0.0	0.0	0.0	1	0
HIGH	H783-6838	0.0	6.7	0.2	0.1	0.0	0.0	0.0	1	0
HIGH	H784-6838	0.0	7.2	0.0	0.1	0.0	0.0	0.0	1	0
HIGH	H785-6838	0.0	6.6	0.3	0.2	0.0	0.0	0.0	1	0
HIGH	H786-6838	0.0	5.6	0.3	0.1	0.0	0.0	0.0	1	0
HIGH	H787-6838	0.0	5.9	0.5	0.1	0.0	0.0	0.0	1	0
HIGH	H788-6838	0.0	5.0	0.3	0.3	0.0	0.0	0.0	1	0
HIGH	H789-6838	0.0	6.0	0.9	0.1	0.0	0.0	0.0	1	0
HIGH	H790-6838	0.0	6.7	0.1	0.3	0.0	0.0	0.0	1	0
HIGH	H791-6838	0.0	6.6	0.6	0.5	0.0	0.0	0.0	1	0
HIGH	H792-6838	0.0	7.5	0.1	0.3	0.0	0.0	0.0	1	0
HIGH	H793-6838	0.0	6.7	0.6	0.2	0.0	0.0	0.0	1	0
HIGH	H794-6838	0.0	5.8	0.2	0.0	0.0	0.0	0.0	1	0
HIGH	H795-6838	0.0	6.0	0.9	0.2	0.0	0.0	0.0	1	0
HIGH	H796-6838	0.0	4.7	0.4	0.4	0.0	0.0	0.0	1	0
HIGH	H797-6838	0.0	5.4	0.2	0.0	0.0	0.0	0.0	1	0
HIGH	H798-6838	0.0	6.0	0.2	0.1	0.0	0.0	0.0	1	0
HIGH	H799-6838	0.0	5.5	0.6	0.3	0.0	0.0	0.0	1	0
HIGH	H800-6838	0.0	6.7	0.4	0.2	0.0	0.0	0.0	1	0

**LRR1 Protocol FY01-013**

**12 Month Differential Cell Counts for Females**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)
HIGH	H776-6838	ADEQUATE
HIGH	H777-6838	ADEQUATE
HIGH	H778-6838	ADEQUATE
HIGH	H779-6838	ADEQUATE
HIGH	H780-6838	ADEQUATE
HIGH	H781-6838	ADEQUATE
HIGH	H782-6838	ADEQUATE
HIGH	H783-6838	ADEQUATE
HIGH	H784-6838	ADEQUATE
HIGH	H785-6838	ADEQUATE
HIGH	H786-6838	ADEQUATE
HIGH	H787-6838	ADEQUATE
HIGH	H788-6838	ADEQUATE
HIGH	H789-6838	ADEQUATE
HIGH	H790-6838	ADEQUATE
HIGH	H791-6838	ADEQUATE
HIGH	H792-6838	ADEQUATE
HIGH	H793-6838	ADEQUATE
HIGH	H794-6838	ADEQUATE
HIGH	H795-6838	ADEQUATE
HIGH	H796-6838	ADEQUATE
HIGH	H797-6838	ADEQUATE
HIGH	H798-6838	ADEQUATE
HIGH	H799-6838	ADEQUATE
HIGH	H800-6838	ADEQUATE

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

L-3 18-Month Males

**LRR1 Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	BAND		LYMPHO-		MONO-		EOSINO-		BASO-		ATYPI-		NUCLEA-	WBC	ABSOLUTE
		NEUTRO-	PHILS	NEUTRO-	PHILS	CYTES	PHILS	PHILS	PHILS	CAL	LYPHPS	BLASTS	ESTIMATE				NEUTROPHILS
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(#/100 WBC)	(nX10 <sup>3</sup> cells/μl)	(nX10 <sup>3</sup> cells/μl)
CONTROL	E401-6831	34	0	56	6	4	0	0	0	0	0	0	0	0	14.4	4.9
CONTROL	E402-6831	17	0	80	2	1	0	0	0	0	0	0	10	10	28.4	4.8
CONTROL	E403-6831	18	0	72	6	4	0	0	0	0	0	0	2	2	7.6	1.4
CONTROL	E404-6831	37	0	58	4	1	0	0	0	0	0	0	3	3	10.8	4.0
CONTROL	E405-6831	21	0	74	3	2	0	0	0	0	0	0	2	2	8.4	1.8
CONTROL	E406-6831	44	1	46	6	3	0	0	0	0	0	0	3	3	18.8	8.3
CONTROL	E407-6831	41	0	51	7	1	0	0	0	0	0	0	2	2	12.0	4.9
CONTROL	E409-6831	35	0	58	5	2	0	0	0	0	0	0	1	1	9.2	3.2
CONTROL	E410-6831	33	0	63	1	3	0	0	0	0	0	0	3	3	8.0	2.6
CONTROL	E411-6831	38	0	58	3	1	0	0	0	0	0	0	1	1	10.8	4.1
CONTROL	E412-6831	37	0	51	6	6	0	0	0	0	0	0	0	0	14.4	5.3
CONTROL	E413-6831	25	0	70	2	3	0	0	0	0	0	0	2	2	7.2	1.8
CONTROL	E414-6831	25	0	70	4	1	0	0	0	0	0	0	0	0	19.2	4.8
CONTROL	E415-6831	20	0	76	1	3	0	0	0	0	0	0	1	1	8.0	1.6
CONTROL	E416-6831	30	0	59	6	4	1	0	0	0	0	0	8	8	10.0	3.0
CONTROL	E417-6831	51	0	47	2	0	0	0	0	0	0	0	1	1	10.0	5.1
CONTROL	E418-6831	34	0	57	7	2	0	0	0	0	0	0	0	0	14.0	4.8
CONTROL	E419-6831	28	1	65	4	2	0	0	0	0	0	0	0	0	10.4	2.9
CONTROL	E420-6831	44	0	49	5	2	0	0	0	0	0	0	2	2	11.2	4.9
CONTROL	E421-6831	12	0	79	5	4	0	0	0	0	0	0	0	0	18.4	2.2
CONTROL	E422-6831	39	0	54	6	1	0	0	0	0	0	0	1	1	15.2	5.9
CONTROL	E423-6831	26	0	66	4	4	0	0	0	0	0	0	2	2	11.2	2.9
CONTROL	E424-6831	60	0	30	9	1	0	0	0	0	0	0	0	0	29.6	17.8
CONTROL	E425-6831	37	0	56	4	3	0	0	0	0	0	0	0	0	13.2	4.9

**LRRR Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
CONTROL	E401-6831	0.0	8.1	0.9	0.6	0.0	0.0	0.0	1+	0
CONTROL	E402-6831	0.0	22.7	0.6	0.3	0.0	0.0	0.0	3+	2+
CONTROL	E403-6831	0.0	5.5	0.5	0.3	0.0	0.0	0.0	1+	0
CONTROL	E404-6831	0.0	6.3	0.4	0.1	0.0	0.0	0.0	1+	0
CONTROL	E405-6831	0.0	6.2	0.3	0.2	0.0	0.0	0.0	1+	0
CONTROL	E406-6831	0.2	8.6	1.1	0.6	0.0	0.0	0.0	1+	0
CONTROL	E407-6831	0.0	6.1	0.8	0.1	0.0	0.0	0.0	1+	0
CONTROL	E409-6831	0.0	5.3	0.5	0.2	0.0	0.0	0.0	1+	0
CONTROL	E410-6831	0.0	5.0	0.1	0.2	0.0	0.0	0.0	1+	0
CONTROL	E411-6831	0.0	6.3	0.3	0.1	0.0	0.0	0.0	1+	0
CONTROL	E412-6831	0.0	7.3	0.9	0.9	0.0	0.0	0.0	1+	0
CONTROL	E413-6831	0.0	5.0	0.1	0.2	0.0	0.0	0.0	1+	0
CONTROL	E414-6831	0.0	13.4	0.8	0.2	0.0	0.0	0.0	1+	0
CONTROL	E415-6831	0.0	6.1	0.1	0.2	0.0	0.0	0.0	1+	0
CONTROL	E416-6831	0.0	5.9	0.6	0.4	0.1	0.0	0.0	1+	0
CONTROL	E417-6831	0.0	4.7	0.2	0.0	0.0	0.0	0.0	1+	0
CONTROL	E418-6831	0.0	8.0	1.0	0.3	0.0	0.0	0.0	1+	0
CONTROL	E419-6831	0.1	6.8	0.4	0.2	0.0	0.0	0.0	1+	0
CONTROL	E420-6831	0.0	5.5	0.6	0.2	0.0	0.0	0.0	1+	0
CONTROL	E421-6831	0.0	14.5	0.9	0.7	0.0	0.0	0.0	3+	0
CONTROL	E422-6831	0.0	8.2	0.9	0.2	0.0	0.0	0.0	2+	0
CONTROL	E423-6831	0.0	7.4	0.4	0.4	0.0	0.0	0.0	1+	0
CONTROL	E424-6831	0.0	8.9	2.7	0.3	0.0	0.0	0.0	1+	0
CONTROL	E425-6831	0.0	7.4	0.5	0.4	0.0	0.0	0.0	1+	0

**LRR1 Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E401-6831	adequate	
CONTROL	E402-6831	decreased	
CONTROL	E403-6831	adequate	
CONTROL	E404-6831	adequate	
CONTROL	E405-6831	adequate	
CONTROL	E406-6831	adequate	
CONTROL	E407-6831	adequate	
CONTROL	E409-6831	adequate	
CONTROL	E410-6831	adequate	
CONTROL	E411-6831	adequate	
CONTROL	E412-6831	adequate	
CONTROL	E413-6831	adequate	
CONTROL	E414-6831	adequate	
CONTROL	E415-6831	adequate	
CONTROL	E416-6831	adequate	
CONTROL	E417-6831	adequate	
CONTROL	E418-6831	adequate	
CONTROL	E419-6831	adequate	
CONTROL	E420-6831	adequate	
CONTROL	E421-6831	adequate	
CONTROL	E422-6831	adequate	
CONTROL	E423-6831	adequate	
CONTROL	E424-6831	adequate	
CONTROL	E425-6831	adequate	

**LRR1 Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	BAND		NEUTRO- LYMPHO-		MONO-		EOSINO-		BASO-		ATYPI-		NUCLEA-	WBC	ABSOLUTE
		NEUTRO-	PHILS	PHILS	CYTES	CYTES	PHILS	PHILS	LYMPHS	LYMPHS	BLASTS	ESTIMATE	NEUTROPHILS			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(#/100 WBC)	(nX10 <sup>3</sup> cells/ul)	(nX10 <sup>3</sup> cells/ul)
CONTROL	E426-6831	24	0	69	1	6	0	0	0	0	0	0	2	14.8	3.6	
CONTROL	E427-6831	20	0	78	1	1	0	0	0	0	0	0	2	10.4	2.1	
CONTROL	E428-6831	34	0	57	3	6	0	0	0	0	0	0	2	7.2	2.4	
CONTROL	E429-6831	27	1	64	4	4	0	0	0	0	0	0	0	10.8	2.9	
CONTROL	E430-6831	52	0	42	3	3	0	0	0	0	0	0	1	10.8	5.6	
CONTROL	E432-6831	23	0	73	3	1	0	0	0	0	0	0	0	10.0	2.3	
CONTROL	E433-6831	33	0	61	5	1	0	0	0	0	0	0	2	12.4	4.1	
CONTROL	E434-6831	20	0	72	4	4	0	0	0	0	0	0	0	18.0	3.6	
CONTROL	E435-6831	32	0	66	2	0	0	0	0	0	0	0	4	12.8	4.1	
CONTROL	E436-6831	47	0	47	4	2	0	0	0	0	0	0	0	13.0	6.1	
CONTROL	E437-6831	33	0	65	1	1	0	0	0	0	0	0	0	12.0	4.0	
CONTROL	E438-6831	17	0	74	6	3	0	0	0	0	0	0	2	6.8	1.2	
CONTROL	E440-6831	34	0	61	5	0	0	0	0	0	0	0	1	17.6	6.0	
CONTROL	E441-6831	28	0	64	5	3	0	0	0	0	0	0	2	14.0	3.9	
CONTROL	E442-6831	39	0	60	1	0	0	0	0	0	0	0	1	16.8	6.6	
CONTROL	E443-6831	46	0	48	3	3	0	0	0	0	0	0	0	10.8	5.0	
CONTROL	E444-6831	32	0	61	4	3	0	0	0	0	0	0	0	12.4	4.0	
CONTROL	E445-6831	42	0	48	5	5	0	0	0	0	0	0	1	13.6	5.7	
CONTROL	E446-6831	24	0	70	5	1	0	0	0	0	0	0	3	8.4	2.0	
CONTROL	E447-6831	35	0	59	2	4	0	0	0	0	0	0	3	11.2	3.9	
CONTROL	E448-6831	31	0	64	3	2	0	0	0	0	0	0	2	17.2	5.3	
CONTROL	E449-6831	35	0	58	5	2	0	0	0	0	0	0	2	13.2	4.6	
CONTROL	E450-6831	34	0	62	1	3	0	0	0	0	0	0	1	21.2	7.2	
HIGH	H701-6837	35	0	58	4	3	0	0	0	0	0	0	1	15.2	5.3	
HIGH	H702-6837	52	1	43	1	3	0	0	0	0	0	0	5	10.0	5.2	

**LRR1 Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)		ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)		ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)		ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)		ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)		ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)		ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)		POLYCHROMASIA (1+ - 4+)		ANISOCYTOSIS (0 - 4+)	
CONTROL	E426-6831	0.0	10.2	0.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E427-6831	0.0	8.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E428-6831	0.0	4.1	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E429-6831	0.1	6.9	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E430-6831	0.0	4.5	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E432-6831	0.0	7.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E433-6831	0.0	7.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E434-6831	0.0	13.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E435-6831	0.0	8.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E436-6831	0.0	6.1	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E437-6831	0.0	7.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E438-6831	0.0	5.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E440-6831	0.0	10.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E441-6831	0.0	9.0	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E442-6831	0.0	10.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E443-6831	0.0	5.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E444-6831	0.0	7.6	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E445-6831	0.0	6.5	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E446-6831	0.0	5.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E447-6831	0.0	6.6	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E448-6831	0.0	11.0	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E449-6831	0.0	7.7	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
CONTROL	E450-6831	0.0	13.1	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
HIGH	H701-6837	0.0	8.8	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0
HIGH	H702-6837	0.1	4.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0

**LRRR Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E426-6831	adequate	
CONTROL	E427-6831	adequate	
CONTROL	E428-6831	adequate	
CONTROL	E429-6831	adequate	
CONTROL	E430-6831	adequate	
CONTROL	E432-6831	adequate	
CONTROL	E433-6831	adequate	
CONTROL	E434-6831	adequate	
CONTROL	E435-6831	adequate	
CONTROL	E436-6831	adequate	
CONTROL	E437-6831	adequate	
CONTROL	E438-6831	decreased	ss fibrin strands seen on slide. This would decrease the number of platelets seen on the slide.
CONTROL	E440-6831	adequate	
CONTROL	E441-6831	adequate	
CONTROL	E442-6831	adequate	
CONTROL	E443-6831	adequate	
CONTROL	E444-6831	adequate	
CONTROL	E445-6831	adequate	
CONTROL	E446-6831	adequate	
CONTROL	E447-6831	adequate	
CONTROL	E448-6831	adequate	
CONTROL	E449-6831	adequate	
CONTROL	E450-6831	adequate	
HIGH	H701-6837	adequate	
HIGH	H702-6837	adequate	

**LRR1 Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	BAND		NEUTRO- LYMPHO-		MONO-		EOSINO-		BASO-		ATYPI-		NUCLEA- TED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ul)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ul)
		NEUTRO- PHILS (%)	PHILS (%)	CYTES (%)	CYTES (%)	CYTES (%)	PHILS (%)	PHILS (%)	LYMPHS (%)	CAL LYMPHS (%)	BLASTS (%)					
HIGH	H703-6837	49	0	47	4	0	0	0	0	0	0	0	1	13.2	6.5	
HIGH	H704-6837	50	0	45	3	2	0	0	0	0	0	0	1	13.0	6.5	
HIGH	H705-6837	34	0	59	4	3	0	0	0	0	0	0	1	8.8	3.0	
HIGH	H706-6837	46	0	47	4	3	0	0	0	0	0	0	1	17.2	7.9	
HIGH	H707-6837	23	0	71	5	1	0	0	0	0	0	0	0	14.4	3.3	
HIGH	H708-6837	55	0	42	1	2	0	0	0	0	0	0	1	13.2	7.3	
HIGH	H709-6837	22	0	69	5	4	0	0	0	0	0	0	2	16.8	3.7	
HIGH	H710-6837	40	0	51	7	2	0	0	0	0	0	0	1	27.6	11.0	
HIGH	H711-6837	30	0	63	1	6	0	0	0	0	0	0	2	9.6	2.9	
HIGH	H712-6837	45	0	48	5	2	0	0	0	0	0	0	0	13.2	5.9	
HIGH	H713-6837	40	0	52	6	2	0	0	0	0	0	0	0	16.8	6.7	
HIGH	H714-6837	35	0	61	1	3	0	0	0	0	0	0	0	15.2	5.3	
HIGH	H715-6837	27	0	60	9	4	0	0	0	0	0	0	1	21.6	5.8	
HIGH	H717-6837	45	0	53	2	0	0	0	0	0	0	0	3	10.0	4.5	
HIGH	H718-6837	28	0	67	3	2	0	0	0	0	0	0	2	9.2	2.6	
HIGH	H720-6837	25	0	70	3	2	0	0	0	0	0	0	0	22.0	5.5	
HIGH	H721-6837	17	0	76	4	3	0	0	0	0	0	0	0	14.8	2.5	
HIGH	H722-6837	66	0	30	3	1	0	0	0	0	0	0	2	36.4	24.0	
HIGH	H723-6837	34	0	57	8	1	0	0	0	0	0	0	1	14.8	5.0	
HIGH	H724-6837	37	0	59	4	0	0	0	0	0	0	0	2	9.6	3.6	
HIGH	H725-6837	28	0	67	2	3	0	0	0	0	0	0	3	7.6	2.1	
HIGH	H726-6837	36	0	59	3	2	0	0	0	0	0	0	1	7.2	2.6	
HIGH	H727-6837	44	0	49	4	3	0	0	0	0	0	0	6	7.6	3.3	
HIGH	H728-6837	26	0	66	5	3	0	0	0	0	0	0	0	14.4	3.7	
HIGH	H729-6837	47	0	49	2	2	0	0	0	0	0	0	3	8.0	3.8	

**LRR Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
HIGH	H703-6837	0.0	6.2	0.5	0.0	0.0	0.0	0.0	1+	0
HIGH	H704-6837	0.0	5.9	0.4	0.3	0.0	0.0	0.0	1+	0
HIGH	H705-6837	0.0	5.2	0.4	0.3	0.0	0.0	0.0	1+	0
HIGH	H706-6837	0.0	8.1	0.7	0.5	0.0	0.0	0.0	1+	0
HIGH	H707-6837	0.0	10.2	0.7	0.1	0.0	0.0	0.0	1+	0
HIGH	H708-6837	0.0	5.5	0.1	0.3	0.0	0.0	0.0	1+	0
HIGH	H709-6837	0.0	11.6	0.8	0.7	0.0	0.0	0.0	1+	0
HIGH	H710-6837	0.0	14.1	1.9	0.6	0.0	0.0	0.0	1+	0
HIGH	H711-6837	0.0	6.0	0.1	0.6	0.0	0.0	0.0	1+	0
HIGH	H712-6837	0.0	6.3	0.7	0.3	0.0	0.0	0.0	1+	0
HIGH	H713-6837	0.0	8.7	1.0	0.3	0.0	0.0	0.0	1+	0
HIGH	H714-6837	0.0	9.3	0.2	0.5	0.0	0.0	0.0	1+	0
HIGH	H715-6837	0.0	13.0	1.9	0.9	0.0	0.0	0.0	1+	0
HIGH	H717-6837	0.0	5.3	0.2	0.0	0.0	0.0	0.0	1+	0
HIGH	H718-6837	0.0	6.2	0.3	0.2	0.0	0.0	0.0	1+	0
HIGH	H720-6837	0.0	15.4	0.7	0.4	0.0	0.0	0.0	1+	0
HIGH	H721-6837	0.0	11.2	0.6	0.4	0.0	0.0	0.0	1+	0
HIGH	H722-6837	0.0	10.9	1.1	0.4	0.0	0.0	0.0	1+	0
HIGH	H723-6837	0.0	8.4	1.2	0.1	0.0	0.0	0.0	1+	0
HIGH	H724-6837	0.0	5.7	0.4	0.0	0.0	0.0	0.0	1+	0
HIGH	H725-6837	0.0	5.1	0.2	0.2	0.0	0.0	0.0	1+	0
HIGH	H726-6837	0.0	4.2	0.2	0.1	0.0	0.0	0.0	1+	0
HIGH	H727-6837	0.0	3.7	0.3	0.2	0.0	0.0	0.0	1+	0
HIGH	H728-6837	0.0	9.5	0.7	0.4	0.0	0.0	0.0	1+	0
HIGH	H729-6837	0.0	3.9	0.2	0.2	0.0	0.0	0.0	1+	0

**LRR I Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
HIGH	H703-6837	adequate	
HIGH	H704-6837	adequate	
HIGH	H705-6837	adequate	
HIGH	H706-6837	adequate	
HIGH	H707-6837	adequate	
HIGH	H708-6837	adequate	
HIGH	H709-6837	adequate	
HIGH	H710-6837	adequate	
HIGH	H711-6837	adequate	
HIGH	H712-6837	adequate	
HIGH	H713-6837	adequate	
HIGH	H714-6837	adequate	
HIGH	H715-6837	adequate	
HIGH	H717-6837	adequate	
HIGH	H718-6837	adequate	
HIGH	H720-6837	adequate	
HIGH	H721-6837	adequate	
HIGH	H722-6837	adequate	
HIGH	H723-6837	adequate	
HIGH	H724-6837	adequate	
HIGH	H725-6837	adequate	
HIGH	H726-6837	adequate	
HIGH	H727-6837	adequate	
HIGH	H728-6837	adequate	
HIGH	H729-6837	adequate	

**LRRR Protocol FY01-013**  
**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	BAND		LYMPHO-		MONO-		EOSINO-		BASO-		ATYPI-		NUCLEA-	WBC	ABSOLUTE
		NEUTRO-	PHILS	NEUTRO-	CYTES	CYTES	PHILS	PHILS	PHILS	LYMPHS	BLASTS	ESTIMATE	NEUTROPHILS			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(#/100 WBC)	(nX10 <sup>3</sup> cells/μl)	(nX10 <sup>3</sup> cells/μl)
HIGH	H730-6837	31	0	64	1	4	0	0	0	0	0	0	1	10.0	3.1	
HIGH	H731-6837	27	0	66	4	3	0	0	0	0	0	0	1	13.6	3.7	
HIGH	H732-6837	51	0	45	3	1	0	0	0	0	0	0	0	12.4	6.3	
HIGH	H733-6837	30	0	60	5	5	0	0	0	0	0	0	0	12.8	3.8	
HIGH	H734-6837	49	0	44	4	3	0	0	0	0	0	0	2	7.6	3.7	
HIGH	H735-6837	36	0	60	2	2	0	0	0	0	0	0	2	9.6	3.5	
HIGH	H736-6837	36	0	57	4	3	0	0	0	0	0	0	0	17.6	6.3	
HIGH	H737-6837	71	0	27	2	0	0	0	0	0	0	0	1	22.8	16.2	
HIGH	H738-6837	29	0	64	6	1	0	0	0	0	0	0	0	9.2	2.7	
HIGH	H739-6837	38	0	59	2	1	0	0	0	0	0	0	0	11.2	4.3	
HIGH	H740-6837	33	0	60	5	2	0	0	0	0	0	0	1	14.8	4.9	
HIGH	H741-6837	52	0	39	5	4	0	0	0	0	0	0	4	6.0	3.1	
HIGH	H742-6837	22	0	69	4	5	0	0	0	0	0	0	6	14.8	3.3	
HIGH	H743-6837	48	0	46	5	1	0	0	0	0	0	0	0	10.8	5.2	
HIGH	H745-6837	32	0	61	4	3	0	0	0	0	0	0	1	6.0	1.9	
HIGH	H746-6837	32	0	61	4	3	0	0	0	0	0	0	2	9.6	3.1	
HIGH	H747-6837	51	0	46	2	1	0	0	0	0	0	0	1	8.8	4.5	
HIGH	H748-6837	35	0	64	0	1	0	0	0	0	0	0	2	5.6	2.0	
HIGH	H749-6837	34	0	58	4	4	0	0	0	0	0	0	3	4.6	1.6	
HIGH	H750-6837	40	0	53	2	5	0	0	0	0	0	0	4	4.4	1.8	

**LRRR Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
HIGH	H730-6837	0.0	6.4	0.1	0.4	0.0	0.0	0.0	1+	0
HIGH	H731-6837	0.0	9.0	0.5	0.4	0.0	0.0	0.0	1+	0
HIGH	H732-6837	0.0	5.6	0.4	0.1	0.0	0.0	0.0	1+	0
HIGH	H733-6837	0.0	7.7	0.6	0.6	0.0	0.0	0.0	1+	0
HIGH	H734-6837	0.0	3.3	0.3	0.2	0.0	0.0	0.0	1+	0
HIGH	H735-6837	0.0	5.8	0.2	0.2	0.0	0.0	0.0	1+	0
HIGH	H736-6837	0.0	10.0	0.7	0.5	0.0	0.0	0.0	1+	0
HIGH	H737-6837	0.0	6.2	0.5	0.0	0.0	0.0	0.0	1+	0
HIGH	H738-6837	0.0	5.9	0.6	0.1	0.0	0.0	0.0	1+	0
HIGH	H739-6837	0.0	6.6	0.2	0.1	0.0	0.0	0.0	1+	0
HIGH	H740-6837	0.0	8.9	0.7	0.3	0.0	0.0	0.0	1+	0
HIGH	H741-6837	0.0	2.3	0.3	0.2	0.0	0.0	0.0	1+	0
HIGH	H742-6837	0.0	10.2	0.6	0.7	0.0	0.0	0.0	1+	0
HIGH	H743-6837	0.0	5.0	0.5	0.1	0.0	0.0	0.0	1+	0
HIGH	H745-6837	0.0	3.7	0.2	0.2	0.0	0.0	0.0	1+	0
HIGH	H746-6837	0.0	5.9	0.4	0.3	0.0	0.0	0.0	1+	0
HIGH	H747-6837	0.0	4.0	0.2	0.1	0.0	0.0	0.0	1+	0
HIGH	H748-6837	0.0	3.6	0.0	0.1	0.0	0.0	0.0	1+	0
HIGH	H749-6837	0.0	2.7	0.2	0.2	0.0	0.0	0.0	1+	0
HIGH	H750-6837	0.0	2.3	0.1	0.2	0.0	0.0	0.0	1+	0

**LRRR Protocol FY01-013**

**18 Month Differential Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
HIGH	H730-6837	adequate	
HIGH	H731-6837	adequate	
HIGH	H732-6837	adequate	
HIGH	H733-6837	adequate	
HIGH	H734-6837	adequate	
HIGH	H735-6837	adequate	
HIGH	H736-6837	adequate	
HIGH	H737-6837	adequate	
HIGH	H738-6837	adequate	
HIGH	H739-6837	adequate	
HIGH	H740-6837	adequate	
HIGH	H741-6837	adequate	
HIGH	H742-6837	adequate	
HIGH	H743-6837	adequate	
HIGH	H745-6837	adequate	
HIGH	H746-6837	adequate	
HIGH	H747-6837	adequate	
HIGH	H748-6837	adequate	
HIGH	H749-6837	decreased	ss fibrin strands seen on slide. This would decrease the number of platelets seen on the slide.
HIGH	H750-6837	adequate	

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

L-4 18-Month Females

**LRR1 Protocol FY01-013**  
**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	BAND			LYMPHO- CYTES (%)	MONO- CYTES (%)	EOSINO- PHILS (%)	BASO- PHILS (%)	ATYPI- CAL		BLASTS (%)	NUCLEA- TED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/μl)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/μl)
		NEUTRO- PHILS (%)	NEUTRO- PHILS (%)	LYMPHS (%)					LYMPHS (%)					
CONTROL	E451-6832	19	0	77	3	1	0	0	0	0	0	4.0	0.8	
CONTROL	E452-6832	37	0	58	3	2	0	0	0	0	2	4.0	1.5	
CONTROL	E453-6832	29	0	64	4	3	0	0	0	0	1	4.0	1.2	
CONTROL	E454-6832	14	0	84	0	2	0	0	0	0	6	2.0	0.3	
CONTROL	E455-6832	24	0	68	5	3	0	0	0	0	6	5.6	1.3	
CONTROL	E456-6832	24	0	75	0	1	0	0	0	0	1	3.4	0.8	
CONTROL	E457-6832	19	0	75	3	2	0	0	1	0	2	4.8	0.9	
CONTROL	E458-6832	29	0	64	3	3	0	0	1	0	1	9.2	2.7	
CONTROL	E459-6832	24	0	72	2	1	0	0	1	0	1	2.4	0.6	
CONTROL	E460-6832	24	0	72	2	2	0	0	0	0	4	3.2	0.8	
CONTROL	E461-6832	27	0	69	2	2	0	0	0	0	2	2.0	0.5	
CONTROL	E462-6832	28	0	66	1	5	0	0	0	0	2	6.0	1.7	
CONTROL	E463-6832	30	0	66	2	2	0	0	0	0	2	7.2	2.2	
CONTROL	E464-6832	28	0	69	2	1	0	0	0	0	2	4.4	1.2	
CONTROL	E465-6832	28	0	70	0	0	0	0	2	0	1	3.2	0.9	
CONTROL	E466-6832	34	0	61	1	3	0	0	1	0	4	2.8	1.0	
CONTROL	E467-6832	32	0	65	2	1	0	0	0	0	2	2.0	0.6	
CONTROL	E468-6832	23	0	74	1	2	0	0	0	0	1	6.0	1.4	
CONTROL	E469-6832	29	0	69	1	1	0	0	0	0	3	6.4	1.9	
CONTROL	E470-6832	6	1	74	1	0	0	0	17	1	14			
CONTROL	E472-6832	35	0	59	4	2	0	0	0	0	1	5.6	2.0	

**LRR1 Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
CONTROL	E451-6832	0.0	3.1	0.1	0.0	0.0	0.0	0.0	1+	0
CONTROL	E452-6832	0.0	2.3	0.1	0.1	0.0	0.0	0.0	1+	2+
CONTROL	E453-6832	0.0	2.6	0.2	0.1	0.0	0.0	0.0	1+	0
CONTROL	E454-6832	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1+	0
CONTROL	E455-6832	0.0	3.8	0.3	0.2	0.0	0.0	0.0	1+	0
CONTROL	E456-6832	0.0	2.6	0.0	0.0	0.0	0.0	0.0	1+	0
CONTROL	E457-6832	0.0	3.6	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E458-6832	0.0	5.9	0.3	0.3	0.0	0.1	0.0	1+	0
CONTROL	E459-6832	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1+	0
CONTROL	E460-6832	0.0	2.3	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E461-6832	0.0	1.4	0.0	0.0	0.0	0.0	0.0	1+	0
CONTROL	E462-6832	0.0	4.0	0.1	0.3	0.0	0.0	0.0	1+	0
CONTROL	E463-6832	0.0	4.8	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E464-6832	0.0	3.0	0.1	0.0	0.0	0.0	0.0	1+	0
CONTROL	E465-6832	0.0	2.2	0.0	0.0	0.0	0.1	0.0	1+	0
CONTROL	E466-6832	0.0	1.7	0.0	0.1	0.0	0.0	0.0	1+	0
CONTROL	E467-6832	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1+	0
CONTROL	E468-6832	0.0	4.4	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E469-6832	0.0	4.4	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E470-6832	0.0							2+	1+
CONTROL	E472-6832	0.0	3.3	0.2	0.1	0.0	0.0	0.0	1+	0

**LRRR Protocol FY01-013**  
**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E451-6832	adequate	
CONTROL	E452-6832	adequate	
CONTROL	E453-6832	adequate	
CONTROL	E454-6832	adequate	
CONTROL	E455-6832	adequate	
CONTROL	E456-6832	adequate	
CONTROL	E457-6832	adequate	
CONTROL	E458-6832	adequate	
CONTROL	E459-6832	decreased	Gross fibrin clots on slide. This would decrease the number of platelets seen on slide.
CONTROL	E460-6832	adequate	
CONTROL	E461-6832	adequate	
CONTROL	E462-6832	adequate	
CONTROL	E463-6832	adequate	
CONTROL	E464-6832	adequate	
CONTROL	E465-6832	adequate	
CONTROL	E466-6832	adequate	
CONTROL	E467-6832	adequate	
CONTROL	E468-6832	adequate	
CONTROL	E469-6832	adequate	
CONTROL	E470-6832	decreased	Poor smear quality. Proper counting area for WBC estimate not present on slide.
CONTROL	E472-6832	adequate	

**LRRR Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	BAND		LYMPHO- CYTES (%)	MONO- CYTES (%)	EOSINO- PHILS (%)	BASO- PHILS (%)	ATYPICAL		BLASTS (%)	NUCLEATED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)
		NEUTRO- PHILS (%)	LYMPH- CYTES (%)					LYMPHS (%)	LYMPHS (%)				
CONTROL	E473-6832	18	0	78	2	1	0	0	1	0	1	6.8	1.2
CONTROL	E474-6832	24	0	73	1	2	0	0	0	0	9	3.6	0.9
CONTROL	E475-6832	27	0	71	1	1	0	0	0	0	2	3.6	1.0
CONTROL	E476-6832	32	0	64	2	2	0	0	0	0	2	4.8	1.5
CONTROL	E477-6832	21	0	78	0	1	0	0	0	0	5	4.4	0.9
CONTROL	E478-6832	36	0	58	2	4	0	0	0	0	2		
CONTROL	E479-6832	26	0	71	1	2	0	0	0	0	3	7.2	1.9
CONTROL	E480-6832	27	0	68	1	3	0	0	1	0	0	6.8	1.8
CONTROL	E482-6832	25	0	71	2	0	0	0	2	0	5	4.0	1.0
CONTROL	E483-6832	37	0	60	0	3	0	0	0	0	12	3.2	1.2
CONTROL	E484-6832	17	0	80	3	0	0	0	0	0	3	4.0	0.7
CONTROL	E486-6832	24	0	74	1	1	0	0	0	0	4	8.0	1.9
CONTROL	E487-6832	18	0	75	3	1	0	0	3	0	2	9.2	1.7
CONTROL	E488-6832	28	0	68	2	2	0	0	0	0	1	7.6	2.1
CONTROL	E489-6832	29	0	64	3	4	0	0	0	0	2	6.4	1.9
CONTROL	E490-6832	38	0	58	1	3	0	0	0	0	9	4.4	1.7
CONTROL	E491-6832	22	0	74	2	2	0	0	0	0	0	5.4	1.2
CONTROL	E493-6832	35	0	58	4	3	0	0	0	0	3	3.2	1.1
CONTROL	E494-6832	45	3	47	4	1	0	0	0	0	4	4.8	2.2
CONTROL	E495-6832	31	0	64	4	1	0	0	0	0	3	5.2	1.6
CONTROL	E496-6832	46	0	48	5	1	0	0	0	0	9	4.4	2.0
CONTROL	E498-6832	40	0	58	1	1	0	0	0	0	1	2.6	1.0

**LRR1 Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
CONTROL	E473-6832	0.0	5.3	0.1	0.1	0.0	0.1	0.0	1+	0
CONTROL	E474-6832	0.0	2.6	0.0	0.1	0.0	0.0	0.0	1+	0
CONTROL	E475-6832	0.0	2.6	0.0	0.0	0.0	0.0	0.0	1+	0
CONTROL	E476-6832	0.0	3.1	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E477-6832	0.0	3.4	0.0	0.0	0.0	0.0	0.0	1+	0
CONTROL	E478-6832								1+	0
CONTROL	E479-6832	0.0	5.1	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E480-6832	0.0	4.6	0.1	0.2	0.0	0.1	0.0	1+	0
CONTROL	E482-6832	0.0	2.8	0.1	0.0	0.0	0.1	0.0	1+	0
CONTROL	E483-6832	0.0	1.9	0.0	0.1	0.0	0.0	0.0	1+	0
CONTROL	E484-6832	0.0	3.2	0.1	0.0	0.0	0.0	0.0	1+	0
CONTROL	E486-6832	0.0	5.9	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E487-6832	0.0	6.9	0.3	0.1	0.0	0.3	0.0	1+	0
CONTROL	E488-6832	0.0	5.2	0.2	0.2	0.0	0.0	0.0	1+	0
CONTROL	E489-6832	0.0	4.1	0.2	0.3	0.0	0.0	0.0	1+	0
CONTROL	E490-6832	0.0	2.6	0.0	0.1	0.0	0.0	0.0	1+	0
CONTROL	E491-6832	0.0	4.0	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E493-6832	0.0	1.9	0.1	0.1	0.0	0.0	0.0	1+	0
CONTROL	E494-6832	0.1	2.3	0.2	0.0	0.0	0.0	0.0	2+	0
CONTROL	E495-6832	0.0	3.3	0.2	0.1	0.0	0.0	0.0	1+	0
CONTROL	E496-6832	0.0	2.1	0.2	0.0	0.0	0.0	0.0	1+	0
CONTROL	E498-6832	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1+	0

**LRR Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E473-6832	adequate	
CONTROL	E474-6832	adequate	
CONTROL	E475-6832	adequate	
CONTROL	E476-6832	adequate	
CONTROL	E477-6832	adequate	
CONTROL	E478-6832	adequate	
CONTROL	E479-6832	adequate	
CONTROL	E480-6832	adequate	
CONTROL	E482-6832	adequate	
CONTROL	E483-6832	adequate	
CONTROL	E484-6832	adequate	
CONTROL	E486-6832	adequate	
CONTROL	E487-6832	adequate	
CONTROL	E488-6832	adequate	
CONTROL	E489-6832	adequate	
CONTROL	E490-6832	adequate	
CONTROL	E491-6832	adequate	
CONTROL	E493-6832	adequate	
CONTROL	E494-6832	adequate	
CONTROL	E495-6832	adequate	
CONTROL	E496-6832	adequate	
CONTROL	E498-6832	adequate	

Poor smear quality. Proper counting area for WBC estimate not present on slide.

**LRRR Protocol FY01-013**  
**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	BAND		LYMPHO- CYTES (%)	MONO- CYTES (%)	EOSINO- PHILS (%)	BASO- PHILS (%)	ATYPICAL		BLASTS (%)	NUCLEA- TED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)
		NEUTRO- PHILS (%)	PHILS (%)					LYMPHS (%)	LYMPHS (%)				
CONTROL	E499-6832	53	0	45	0	2	0	0	0	0	10	5.2	2.8
CONTROL	E500-6832	16	0	77	2	5	0	0	0	0	3	4.0	0.6
HIGH	H751-6838	31	0	67	0	0	0	2	0	0	5	5.2	1.6
HIGH	H752-6838	32	0	65	3	0	0	0	0	0	2	4.8	1.5
HIGH	H753-6838	26	0	71	2	1	0	0	0	0	0	4.4	1.1
HIGH	H754-6838	16	0	78	2	4	0	0	0	0	1	3.0	0.5
HIGH	H755-6838	27	0	70	2	0	0	1	0	0	0	5.2	1.4
HIGH	H756-6838	25	0	70	3	1	0	1	0	0	3	4.6	1.2
HIGH	H758-6838	16	0	79	3	2	0	0	0	0	4	4.6	0.7
HIGH	H759-6838	41	0	56	2	1	0	0	0	0	3	8.0	3.3
HIGH	H760-6838	18	0	79	2	0	0	1	0	0	2	5.0	0.9
HIGH	H761-6838	36	0	60	3	1	0	0	0	0	7	4.2	1.5
HIGH	H762-6838	32	0	65	2	0	0	1	0	0	0	6.4	2.0
HIGH	H765-6838	37	0	53	7	1	0	2	0	0	2	4.0	1.5
HIGH	H767-6838	31	0	63	3	3	0	0	0	0	7	3.6	1.1
HIGH	H768-6838	33	0	63	1	3	0	0	0	0	1	3.0	1.0
HIGH	H769-6838	22	0	74	3	1	0	0	0	0	5	3.4	0.7
HIGH	H770-6838	30	0	66	2	2	0	0	0	0	2	5.2	1.6
HIGH	H771-6838	29	0	61	4	4	0	2	0	0	2	3.2	0.9
HIGH	H772-6838	24	0	73	2	1	0	0	0	0	4	1.8	0.4
HIGH	H773-6838	23	0	74	2	1	0	0	0	0	1	2.8	0.6
HIGH	H775-6838	21	0	76	1	1	0	1	0	0	2	5.2	1.1

**LRRR Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
CONTROL	E499-6832	0.0	2.3	0.0	0.1	0.0	0.0	0.0	2+	0
CONTROL	E500-6832	0.0	3.1	0.1	0.2	0.0	0.0	0.0	1+	0
HIGH	H751-6838	0.0	3.5	0.0	0.0	0.0	0.1	0.0	1+	0
HIGH	H752-6838	0.0	3.1	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H753-6838	0.0	3.1	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H754-6838	0.0	2.3	0.1	0.1	0.0	0.0	0.0	1+	0
HIGH	H755-6838	0.0	3.6	0.1	0.0	0.0	0.1	0.0	1+	0
HIGH	H756-6838	0.0	3.2	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H758-6838	0.0	3.6	0.1	0.1	0.0	0.0	0.0	1+	0
HIGH	H759-6838	0.0	4.5	0.2	0.1	0.0	0.0	0.0	1+	0
HIGH	H760-6838	0.0	4.0	0.1	0.0	0.0	0.1	0.0	1+	0
HIGH	H761-6838	0.0	2.5	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H762-6838	0.0	4.2	0.1	0.0	0.0	0.1	0.0	1+	0
HIGH	H765-6838	0.0	2.1	0.3	0.0	0.0	0.1	0.0	1+	0
HIGH	H767-6838	0.0	2.3	0.1	0.1	0.0	0.0	0.0	1+	0
HIGH	H768-6838	0.0	1.9	0.0	0.1	0.0	0.0	0.0	1+	0
HIGH	H769-6838	0.0	2.5	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H770-6838	0.0	3.4	0.1	0.1	0.0	0.0	0.0	1+	0
HIGH	H771-6838	0.0	2.0	0.1	0.1	0.0	0.1	0.0	1+	0
HIGH	H772-6838	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1+	0
HIGH	H773-6838	0.0	2.1	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H775-6838	0.0	4.0	0.1	0.1	0.0	0.1	0.0	1+	0

**LRR1 Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E499-6832	decreased	
CONTROL	E500-6832	adequate	
HIGH	H751-6838	adequate	
HIGH	H752-6838	adequate	
HIGH	H753-6838	adequate	
HIGH	H754-6838	adequate	
HIGH	H755-6838	adequate	
HIGH	H756-6838	adequate	
HIGH	H758-6838	decreased	
HIGH	H759-6838	adequate	
HIGH	H760-6838	adequate	
HIGH	H761-6838	adequate	
HIGH	H762-6838	adequate	
HIGH	H765-6838	decreased	
HIGH	H767-6838	adequate	
HIGH	H768-6838	adequate	
HIGH	H769-6838	adequate	
HIGH	H770-6838	adequate	
HIGH	H771-6838	adequate	
HIGH	H772-6838	adequate	
HIGH	H773-6838	adequate	
HIGH	H775-6838	adequate	

**LRRR Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	BAND		LYMPHO-		MONO-		EOSINO-		BASO-		ATYPI-		NUCLEA-	WBC	ABSOLUTE
		NEUTRO-	NEUTRO-	CYTES	CYTES	PHILS	PHILS	PHILS	PHILS	LYMPHS	LYMPHS	BLASTS	ESTIMATE				NEUTROPHILS
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(#/100 WBC)	(nX10 <sup>3</sup> cells/μl)	(nX10 <sup>3</sup> cells/μl)
HIGH	H776-6838	18	0	81	1	0	0	0	0	0	0	0	2	5.5	1.0	
HIGH	H777-6838	34	0	63	3	0	0	0	0	0	0	0	7	4.8	1.6	
HIGH	H778-6838	32	1	62	4	0	0	0	0	0	0	1	2	8.2	2.6	
HIGH	H779-6838	37	0	58	4	0	0	0	0	0	0	1	2	4.4	1.6	
HIGH	H780-6838	26	0	66	5	3	0	0	0	0	0	0	1	6.0	1.6	
HIGH	H781-6838	34	0	60	2	4	0	0	0	0	0	0	0	3.8	1.3	
HIGH	H782-6838	24	0	72	4	0	0	0	0	0	0	0	6	5.4	1.3	
HIGH	H783-6838	35	0	59	3	3	0	0	0	0	0	0	6	3.8	1.3	
HIGH	H784-6838	45	0	52	2	1	0	0	0	0	0	0	4	4.2	1.9	
HIGH	H786-6838	23	0	70	4	3	0	0	0	0	0	0	2	7.0	1.6	
HIGH	H787-6838	22	0	70	6	2	0	0	0	0	0	0	2	3.2	0.7	
HIGH	H788-6838	28	0	66	4	2	0	0	0	0	0	0	4	3.8	1.1	
HIGH	H789-6838	29	0	65	2	2	0	0	0	0	0	2	1	5.0	1.5	
HIGH	H790-6838	35	0	62	3	0	0	0	0	0	0	0	5	2.6	0.9	
HIGH	H791-6838	30	0	63	4	2	0	0	0	0	0	1	3	7.6	2.3	
HIGH	H792-6838	27	0	63	8	1	0	0	0	0	0	1	1	6.0	1.6	
HIGH	H793-6838	20	0	70	7	3	0	0	0	0	0	0	2	4.4	0.9	
HIGH	H795-6838	37	0	60	1	2	0	0	0	0	0	0	1	5.0	1.9	
HIGH	H796-6838	40	0	57	2	1	0	0	0	0	0	0	1	7.2	2.9	
HIGH	H797-6838	30	1	62	3	3	0	0	0	0	0	1	6	6.8	2.0	
HIGH	H798-6838	16	0	76	7	0	0	0	0	0	0	1	1	6.0	1.0	
HIGH	H799-6838	28	0	70	2	0	0	0	0	0	0	0	9	4.2	1.2	
HIGH	H800-6838	24	0	73	2	1	0	0	0	0	0	0	1	4.6	1.1	

**LRRR Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
HIGH	H776-6838	0.0	4.5	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H777-6838	0.0	3.0	0.1	0.0	0.0	0.0	0.0	3+	2+
HIGH	H778-6838	0.1	5.1	0.3	0.0	0.0	0.1	0.0	1+	0
HIGH	H779-6838	0.0	2.6	0.2	0.0	0.0	0.0	0.0	1+	0
HIGH	H780-6838	0.0	4.0	0.3	0.2	0.0	0.0	0.0	1+	0
HIGH	H781-6838	0.0	2.3	0.1	0.2	0.0	0.0	0.0	1+	0
HIGH	H782-6838	0.0	3.9	0.2	0.0	0.0	0.0	0.0	1+	0
HIGH	H783-6838	0.0	2.2	0.1	0.1	0.0	0.0	0.0	1+	0
HIGH	H784-6838	0.0	2.2	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H786-6838	0.0	4.9	0.3	0.2	0.0	0.0	0.0	1+	0
HIGH	H787-6838	0.0	2.2	0.2	0.1	0.0	0.0	0.0	1+	0
HIGH	H788-6838	0.0	2.5	0.2	0.1	0.0	0.0	0.0	1+	0
HIGH	H789-6838	0.0	3.3	0.1	0.1	0.0	0.1	0.0	1+	0
HIGH	H790-6838	0.0	1.6	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H791-6838	0.0	4.8	0.3	0.2	0.0	0.1	0.0	1+	0
HIGH	H792-6838	0.0	3.8	0.5	0.1	0.0	0.1	0.0	1+	0
HIGH	H793-6838	0.0	3.1	0.3	0.1	0.0	0.0	0.0	1+	0
HIGH	H795-6838	0.0	3.0	0.1	0.1	0.0	0.0	0.0	1+	0
HIGH	H796-6838	0.0	4.1	0.1	0.1	0.0	0.0	0.0	1+	0
HIGH	H797-6838	0.1	4.2	0.2	0.2	0.0	0.1	0.0	1+	0
HIGH	H798-6838	0.0	4.6	0.4	0.0	0.0	0.1	0.0	1+	0
HIGH	H799-6838	0.0	2.9	0.1	0.0	0.0	0.0	0.0	1+	0
HIGH	H800-6838	0.0	3.4	0.1	0.0	0.0	0.0	0.0	1+	0

**LRRR Protocol FY01-013**

**18 Month Differential Cell Counts for Female Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
HIGH	H776-6838	adequate	
HIGH	H777-6838	adequate	
HIGH	H778-6838	adequate	
HIGH	H779-6838	adequate	
HIGH	H780-6838	adequate	
HIGH	H781-6838	adequate	
HIGH	H782-6838	adequate	
HIGH	H783-6838	adequate	
HIGH	H784-6838	adequate	
HIGH	H786-6838	adequate	
HIGH	H787-6838	adequate	
HIGH	H788-6838	adequate	
HIGH	H789-6838	adequate	
HIGH	H790-6838	adequate	
HIGH	H791-6838	adequate	
HIGH	H792-6838	adequate	
HIGH	H793-6838	adequate	
HIGH	H795-6838	adequate	
HIGH	H796-6838	adequate	
HIGH	H797-6838	adequate	
HIGH	H798-6838	adequate	
HIGH	H799-6838	adequate	
HIGH	H800-6838	adequate	

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

L-5 24-Month Males

**LRRR Protocol FY01-013**

**Final Differential Cell Counts for Male Rats**

GROUP	ANIMAL	BAND			MONO-			EOSINO-			BASO-			ATYPI-		NUCLEA- TED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)
		NEUTRO- PHILS (%)	NEUTRO- PHILS (%)	LYMPHO- CYTES (%)	LYMPHO- CYTES (%)	MONO- CYTES (%)	MONO- CYTES (%)	EOSINO- PHILS (%)	EOSINO- PHILS (%)	BASO- PHILS (%)	BASO- PHILS (%)	LYMPHS (%)	CAL (%)	BLASTS (%)				
CONTROL	E407-6831	59	0	30	6	1	0	0	0	4	0	0	1	3.6	2.1			
CONTROL	E413-6831	63	0	30	6	1	0	0	0	0	0	7	3.0	1.9				
CONTROL	E415-6831	24	0	59	4	1	0	0	0	12	0	2	22.6	5.4				
CONTROL	E418-6831	55	0	32	5	5	0	0	0	3	0	7	2.2	1.2				
CONTROL	E422-6831	49	0	42	6	2	0	0	0	1	0	0	3.8	1.9				
CONTROL	E435-6831	54	0	40	3	0	0	0	0	3	0	0	2.8	1.5				
CONTROL	E436-6831	59	0	30	5	0	0	0	0	6	0	2	5.4	3.2				
CONTROL	E437-6831	37	0	53	5	1	0	0	0	4	0	0	4.2	1.6				
CONTROL	E440-6831	57	0	33	4	0	0	0	0	6	0	1	2.0	1.1				
CONTROL	E442-6831	14	0	68	2	0	0	0	0	16	0	5	19.8	2.8				
CONTROL	E443-6831	54	0	39	1	1	0	0	0	5	0	2	4.2	2.3				
CONTROL	E446-6831	4	0	75	2	0	0	0	0	19	0	0	68.8	2.8				
CONTROL	E448-6831	43	0	49	1	0	0	0	0	7	0	4	3.2	1.4				
CONTROL	E449-6831	60	0	27	1	4	0	0	0	8	0	0	2.1	1.3				
HIGH	H702-6837	50	0	44	0	0	0	0	0	6	0	4	5.8	2.9				
HIGH	H704-6837	42	0	44	3	1	0	0	0	10	0	4	2.6	1.1				

**LRRR Protocol FY01-013**

**Final Differential Cell Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHRO-MASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
CONTROL	E407-6831	0.0	1.1	0.2	0.0	0.0	0.1	0.0	1+	0
CONTROL	E413-6831	0.0	0.9	0.2	0.0	0.0	0.0	0.0	1+	0
CONTROL	E415-6831	0.0	13.3	0.9	0.2	0.0	2.7	0.0	1+	0
CONTROL	E418-6831	0.0	0.7	0.1	0.1	0.0	0.1	0.0	1+	0
CONTROL	E422-6831	0.0	1.6	0.2	0.1	0.0	0.0	0.0	1+	0
CONTROL	E435-6831	0.0	1.1	0.1	0.0	0.0	0.1	0.0	1+	0
CONTROL	E436-6831	0.0	1.6	0.3	0.0	0.0	0.3	0.0	1+	0
CONTROL	E437-6831	0.0	2.2	0.2	0.0	0.0	0.2	0.0	1+	0
CONTROL	E440-6831	0.0	0.7	0.1	0.0	0.0	0.1	0.0	1+	0
CONTROL	E442-6831	0.0	13.5	0.4	0.0	0.0	3.2	0.0	2+	2+
CONTROL	E443-6831	0.0	1.6	0.0	0.0	0.0	0.2	0.0	1+	0
CONTROL	E446-6831	0.0	51.6	1.4	0.0	0.0	13.1	0.0	2+	2+
CONTROL	E448-6831	0.0	1.6	0.0	0.0	0.0	0.2	0.0	1+	0
CONTROL	E449-6831	0.0	0.6	0.0	0.1	0.0	0.2	0.0	1+	0
HIGH	H702-6837	0.0	2.6	0.0	0.0	0.0	0.3	0.0	1+	0
HIGH	H704-6837	0.0	1.1	0.1	0.0	0.0	0.3	0.0	1+	0

**LRRR Protocol FY01-013**

**Final Differential Cell Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E407-6831	adequate	
CONTROL	E413-6831	adequate	
CONTROL	E415-6831	adequate	
CONTROL	E418-6831	adequate	
CONTROL	E422-6831	adequate	
CONTROL	E435-6831	adequate	
CONTROL	E436-6831	adequate	
CONTROL	E437-6831	adequate	
CONTROL	E440-6831	adequate	
CONTROL	E442-6831	adequate	
CONTROL	E443-6831	adequate	
CONTROL	E446-6831	decreased	
CONTROL	E448-6831	adequate	
CONTROL	E449-6831	adequate	
HIGH	H702-6837	adequate	
HIGH	H704-6837	adequate	

**LRRR Protocol FY01-013**

**Final Differential Cell Counts for Male Rats**

GROUP	ANIMAL	BAND		LYMPHO-		MONO-		EOSINO-		BASO-		ATYPI-		NUCLEA-	WBC	ABSOLUTE
		NEUTRO-	PHILS	CYTES	CYTES	CYTES	PHILS	PHILS	PHILS	LYMPHS	BLASTS	ESTIMATE	NEUTROPHILS			
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(#/100 WBC)	(nX10 <sup>3</sup> cells/μl)	(nX10 <sup>3</sup> cells/μl)
HIGH	H705-6837	29	0	57	2	0	0	0	0	11	1	7	9.3	2.7		
HIGH	H706-6837	60	0	34	1	1	0	0	0	4	0	0	3.6	2.2		
HIGH	H708-6837	5	0	84	1	0	0	0	0	7	3	0	40.7	2.0		
HIGH	H714-6837	54	0	41	2	1	0	0	0	2	0	1	4.1	2.2		
HIGH	H717-6837	51	0	35	4	3	0	0	0	7	0	3	3.4	1.7		
HIGH	H722-6837	6	0	84	0	0	0	0	0	10	0	0	48.8	2.9		
HIGH	H724-6837	17	0	80	0	0	0	0	0	3	0	1	10.8	1.8		
HIGH	H725-6837	7	0	85	0	0	0	0	0	7	1	4	362.0	25.3		
HIGH	H726-6837	32	0	59	4	1	0	0	0	4	0	11	4.4	1.4		
HIGH	H728-6837	47	0	49	1	0	0	0	0	3	0	1	2.8	1.3		
HIGH	H729-6837	38	0	55	0	1	0	0	0	6	0	12	1.8	0.7		
HIGH	H735-6837	46	0	47	0	1	0	0	0	6	0	5	1.6	0.7		
HIGH	H736-6837	45	0	46	2	0	0	0	0	7	0	5	2.2	1.0		
HIGH	H739-6837	62	0	27	2	2	0	0	0	7	0	6	4.0	2.5		
HIGH	H741-6837	41	0	46	1	3	0	0	0	9	0	8	3.6	1.5		
HIGH	H747-6837	64	0	28	3	3	0	0	0	2	0	6	3.0	1.9		
HIGH	H749-6837	48	0	47	1	2	0	0	0	2	0	5	2.8	1.3		

**LRRR Protocol FY01-013**

**Final Differential Cell Counts for Male Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHROMASIA (1+ - 4+)	ANISOCYTOSIS (0 - 4+)
HIGH	H705-6837	0.0	5.3	0.2	0.0	0.0	1.0	0.1	2+	2+
HIGH	H706-6837	0.0	1.2	0.0	0.0	0.0	0.1	0.0	1+	0
HIGH	H708-6837	0.0	34.2	0.4	0.0	0.0	2.8	1.2	2+	2+
HIGH	H714-6837	0.0	1.7	0.1	0.0	0.0	0.1	0.0	1+	0
HIGH	H717-6837	0.0	1.2	0.1	0.1	0.0	0.2	0.0	1+	0
HIGH	H722-6837	0.0	41.0	0.0	0.0	0.0	4.9	0.0	2+	2+
HIGH	H724-6837	0.0	8.6	0.0	0.0	0.0	0.3	0.0	1+	0
HIGH	H725-6837	0.0	307.7	0.0	0.0	0.0	25.3	3.6	2+	2+
HIGH	H726-6837	0.0	2.6	0.2	0.0	0.0	0.2	0.0	1+	0
HIGH	H728-6837	0.0	1.4	0.0	0.0	0.0	0.1	0.0	1+	0
HIGH	H729-6837	0.0	1.0	0.0	0.0	0.0	0.1	0.0	1+	0
HIGH	H735-6837	0.0	0.8	0.0	0.0	0.0	0.1	0.0	1+	0
HIGH	H736-6837	0.0	1.0	0.0	0.0	0.0	0.2	0.0	1+	0
HIGH	H739-6837	0.0	1.1	0.1	0.1	0.0	0.3	0.0	1+	0
HIGH	H741-6837	0.0	1.7	0.0	0.1	0.0	0.3	0.0	1+	0
HIGH	H747-6837	0.0	0.8	0.1	0.1	0.0	0.1	0.0	1+	0
HIGH	H749-6837	0.0	1.3	0.0	0.1	0.0	0.1	0.0	1+	0

**LRRR Protocol FY01-013**

**Final Differential Cell Counts for Male Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
HIGH	H705-6837	adequate	
HIGH	H706-6837	adequate	
HIGH	H708-6837	decreased	
HIGH	H714-6837	adequate	
HIGH	H717-6837	adequate	
HIGH	H722-6837	decreased	
HIGH	H724-6837	adequate	
HIGH	H725-6837	decreased	
HIGH	H726-6837	adequate	
HIGH	H728-6837	adequate	
HIGH	H729-6837	adequate	
HIGH	H735-6837	adequate	
HIGH	H736-6837	adequate	
HIGH	H739-6837	adequate	
HIGH	H741-6837	adequate	
HIGH	H747-6837	adequate	
HIGH	H749-6837	adequate	

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

L-6 24-Month Females

**LRRR Protocol FY01-013**

**Final Differential Counts for Female Rats**

GROUP	ANIMAL	BAND			LYMPHO-			MONO-			EOSINO-			BASO-			ATYPI-			NUCLEA-	WBC	ABSOLUTE
		NEUTRO-	NEUTRO-	PHILS	PHILS	PHILS	CYTES	CYTES	CYTES	PHILS	PHILS	PHILS	LYMPHS	LYMPHS	LYMPHS	BLASTS	ESTIMATE	NEUTROPHILS				
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(#/100 WBC)	(nX10 <sup>3</sup> cells/μl)	(nX10 <sup>3</sup> cells/μl)				
CONTROL	E451-6832	24	0	0	64	5	1	0	0	6	0	0	3	4.8	1.2							
CONTROL	E452-6832	35	0	0	51	4	1	0	0	9	0	0	5	3.8	1.3							
CONTROL	E456-6832	38	0	0	50	1	2	0	0	9	0	0	1	3.1	1.2							
CONTROL	E458-6832	36	0	0	59	0	0	0	0	5	0	0	8	2.2	0.8							
CONTROL	E460-6832	22	0	0	70	3	1	0	0	4	0	0	2	3.6	0.8							
CONTROL	E461-6832	24	0	0	64	2	4	0	0	6	0	0	3	4.2	1.0							
CONTROL	E462-6832	12	0	0	55	3	0	0	0	30	0	0	3	12.0	1.4							
CONTROL	E463-6832	22	1	0	68	3	2	0	0	4	0	0	38	8.0	1.8							
CONTROL	E464-6832	22	1	0	66	0	0	0	0	11	0	0	42	23.6	5.2							
CONTROL	E467-6832	31	0	0	58	1	1	0	0	9	0	0	3	2.0	0.6							
CONTROL	E472-6832	47	0	0	41	2	0	0	0	10	0	0	1	4.0	1.9							
CONTROL	E475-6832	43	0	0	48	1	2	0	0	6	0	0	7	2.4	1.0							
CONTROL	E478-6832	28	0	0	64	1	2	0	0	5	0	0	3	4.0	1.1							
CONTROL	E483-6832	35	0	0	52	4	1	0	0	8	0	0	5	2.8	1.0							
CONTROL	E486-6832	49	0	0	43	2	2	0	0	4	0	0	4	1.8	0.9							
CONTROL	E489-6832	33	0	0	57	4	3	0	0	3	0	0	1	2.8	0.9							
CONTROL	E490-6832	8	0	0	82	2	0	0	0	8	0	0	5	40.0	3.2							
CONTROL	E493-6832	5	1	0	75	0	0	0	0	16	0	0	14	130.0	6.5							

**LRRR Protocol FY01-013**

**Final Differential Counts for Female Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHRO-MAZIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
CONTROL	E451-6832	0.0	3.1	0.2	0.0	0.0	0.3	0.0	1+	0
CONTROL	E452-6832	0.0	1.9	0.2	0.0	0.0	0.3	0.0	1+	0
CONTROL	E456-6832	0.0	1.6	0.0	0.1	0.0	0.3	0.0	1+	0
CONTROL	E458-6832	0.0	1.3	0.0	0.0	0.0	0.1	0.0	1+	0
CONTROL	E460-6832	0.0	2.5	0.1	0.0	0.0	0.1	0.0	2+	0
CONTROL	E461-6832	0.0	2.7	0.1	0.2	0.0	0.3	0.0	1+	0
CONTROL	E462-6832	0.0	6.6	0.4	0.0	0.0	3.6	0.0	1+	0
CONTROL	E463-6832	0.1	5.4	0.2	0.2	0.0	0.3	0.0	3+	2+
CONTROL	E464-6832	0.2	15.6	0.0	0.0	0.0	2.6	0.0	3+	2+
CONTROL	E467-6832	0.0	1.2	0.0	0.0	0.0	0.2	0.0	1+	0
CONTROL	E472-6832	0.0	1.6	0.1	0.0	0.0	0.4	0.0	1+	0
CONTROL	E475-6832	0.0	1.2	0.0	0.0	0.0	0.1	0.0	1+	0
CONTROL	E478-6832	0.0	2.6	0.0	0.1	0.0	0.2	0.0	1+	0
CONTROL	E483-6832	0.0	1.5	0.1	0.0	0.0	0.2	0.0	1+	0
CONTROL	E486-6832	0.0	0.8	0.0	0.0	0.0	0.1	0.0	1+	0
CONTROL	E489-6832	0.0	1.6	0.1	0.1	0.0	0.1	0.0	1+	0
CONTROL	E490-6832	0.0	32.8	0.8	0.0	0.0	3.2	0.0	3+	2+
CONTROL	E493-6832	1.3	97.5	0.0	0.0	0.0	20.8	3.9	3+	2+

**LRRR Protocol FY01-013**  
**Final Differential Counts for Female Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E451-6832	adequate	
CONTROL	E452-6832	decreased	Platelet decrease is due to microclots in the sample.
CONTROL	E456-6832	adequate	
CONTROL	E458-6832	adequate	
CONTROL	E460-6832	adequate	
CONTROL	E461-6832	adequate	
CONTROL	E462-6832	adequate	
CONTROL	E463-6832	adequate	
CONTROL	E464-6832	decreased	
CONTROL	E467-6832	adequate	
CONTROL	E472-6832	adequate	
CONTROL	E475-6832	adequate	
CONTROL	E478-6832	adequate	
CONTROL	E483-6832	adequate	
CONTROL	E486-6832	adequate	
CONTROL	E489-6832	adequate	
CONTROL	E490-6832	adequate	
CONTROL	E493-6832	decreased	

**LRR1 Protocol FY01-013**

**Final Differential Counts for Female Rats**

GROUP	ANIMAL	BAND		LYMPHO-		MONO-		EOSINO-		BASO-		ATYPI-		NUCLEA- TED RBC (#/100 WBC)	WBC ESTIMATE (nX10 <sup>3</sup> cells/ $\mu$ l)	ABSOLUTE NEUTROPHILS (nX10 <sup>3</sup> cells/ $\mu$ l)
		NEUTRO- PHILS (%)	PHILS (%)	NEUTRO- CYTES (%)	LYMPHO- CYTES (%)	CYTES (%)	PHILS (%)	PHILS (%)	PHILS (%)	LYMPHS (%)	BLASTS (%)	CAL (%)				
CONTROL	E495-6832	28	0	60	1	1	0	10	0	6	4.0	1.1				
CONTROL	E497-6832	40	0	46	4	2	0	8	0	6	2.8	1.1				
CONTROL	E498-6832	34	0	59	0	3	0	4	0	9	1.8	0.6				
CONTROL	E500-6832	46	0	43	0	1	0	10	0	1	2.6	1.2				
HIGH	H754-6838	49	0	41	2	0	1	7	0	7	3.0	1.5				
HIGH	H755-6838	33	0	56	2	2	0	7	0	6	2.4	0.8				
HIGH	H756-6838	23	0	67	3	3	0	4	0	5	2.2	0.5				
HIGH	H758-6838	47	1	47	1	0	0	4	0	0	2.4	1.1				
HIGH	H759-6838	62	0	27	5	3	0	3	0	2	4.6	2.9				
HIGH	H760-6838	49	0	42	3	2	0	4	0	4	3.0	1.5				
HIGH	H761-6838	10	0	62	4	0	0	21	3	2	4.0	0.4				
HIGH	H762-6838	44	0	48	1	1	0	6	0	1	2.8	1.2				
HIGH	H765-6838	40	0	54	0	2	0	4	0	7	3.2	1.3				
HIGH	H767-6838	24	0	66	3	0	0	7	0	13	4.4	1.1				
HIGH	H768-6838	33	0	60	1	1	0	5	0	3	3.2	1.1				
HIGH	H769-6838	27	0	66	2	1	0	4	0	4	3.0	0.8				
HIGH	H771-6838	38	0	58	3	0	0	1	0	5	1.6	0.6				
HIGH	H773-6838	36	0	63	0	0	0	1	0	1	2.0	0.7				
HIGH	H776-6838	50	0	48	1	1	0	0	0	2	1.4	0.7				

**LRRR Protocol FY01-013**

**Final Differential Counts for Female Rats**

GROUP	ANIMAL	ABSOLUTE BAND		ABSOLUTE LYMPHOCYTES		ABSOLUTE MONOCYTES		ABSOLUTE EOSINOPHILS		ABSOLUTE BASOPHILS		ABSOLUTE ATYPICAL LYMPHS		ABSOLUTE BLASTS		POLYCHRO-MASIA		ANISO-CYTOSIS	
		(nX10 <sup>3</sup> cells/μl)	(1+ - 4+)	(1+ - 4+)	(0 - 4+)	(0 - 4+)													
CONTROL	E495-6832	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1+	0	0	0	
CONTROL	E497-6832	0.0	1.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	1+	0	0	0	
CONTROL	E498-6832	0.0	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1+	0	0	0	
CONTROL	E500-6832	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	1+	0	0	0	
HIGH	H754-6838	0.0	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	1+	0	0	0	
HIGH	H755-6838	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	1+	0	0	0	
HIGH	H756-6838	0.0	1.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1+	0	0	0	
HIGH	H758-6838	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1+	0	0	0	
HIGH	H759-6838	0.0	1.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1+	0	0	0	
HIGH	H760-6838	0.0	1.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1+	0	0	0	
HIGH	H761-6838	0.0	2.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.1	0.1	2+	1+	0	0	
HIGH	H762-6838	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	1+	0	0	0	
HIGH	H765-6838	0.0	1.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1+	0	0	0	
HIGH	H767-6838	0.0	2.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	1+	0	0	0	
HIGH	H768-6838	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	1+	0	0	0	
HIGH	H769-6838	0.0	2.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1+	0	0	0	
HIGH	H771-6838	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0	
HIGH	H773-6838	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0	
HIGH	H776-6838	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1+	0	0	0	

**LRRR Protocol FY01-013**  
**Final Differential Counts for Female Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
CONTROL	E495-6832	adequate	
CONTROL	E497-6832	adequate	
CONTROL	E498-6832	adequate	
CONTROL	E500-6832	adequate	
HIGH	H754-6838	adequate	
HIGH	H755-6838	adequate	
HIGH	H756-6838	adequate	
HIGH	H758-6838	adequate	
HIGH	H759-6838	adequate	
HIGH	H760-6838	adequate	
HIGH	H761-6838	adequate	
HIGH	H762-6838	adequate	
HIGH	H765-6838	adequate	
HIGH	H767-6838	adequate	
HIGH	H768-6838	adequate	
HIGH	H769-6838	adequate	
HIGH	H771-6838	adequate	
HIGH	H773-6838	adequate	
HIGH	H776-6838	adequate	

**LRR1 Protocol FY01-013**

**Final Differential Counts for Female Rats**

GROUP	ANIMAL	BAND			LYMPHO-			MONO-			EOSINO-			BASO-			ATYPI-			NUCLEA-	WBC	ABSOLUTE
		NEUTRO-	NEUTRO-	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS	PHILS				ESTIMATE	NEUTROPHILS
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(#/100 WBC)	(nX10 <sup>3</sup> cells/μl)	(nX10 <sup>3</sup> cells/μl)	
HIGH	H777-6838	33	0	60	3	1	0	3	0	0	0	0	0	0	0	0	0	4	2.6	0.9		
HIGH	H778-6838	7	0	79	0	0	0	0	0	0	0	0	0	0	0	0	0	9	40.0	2.8		
HIGH	H779-6838	33	0	64	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2.4	0.8		
HIGH	H780-6838	24	0	62	2	1	0	2	1	0	0	0	0	0	0	0	0	3	6.6	1.6		
HIGH	H781-6838	32	0	60	2	0	0	2	0	0	0	0	0	0	0	0	0	1	2.0	0.6		
HIGH	H782-6838	40	0	56	1	1	0	1	1	0	0	0	0	0	0	0	0	3	1.6	0.6		
HIGH	H784-6838	71	0	25	2	0	0	2	0	0	0	0	0	0	0	0	0	1	2.8	2.0		
HIGH	H787-6838	29	0	61	1	0	0	1	0	0	0	0	0	0	0	0	0	3	3.0	0.9		
HIGH	H788-6838	46	0	46	2	0	0	2	0	0	0	0	0	0	0	0	0	3	4.0	1.8		
HIGH	H789-6838	49	0	42	3	3	0	3	3	0	0	0	0	0	0	0	0	6	1.8	0.9		
HIGH	H790-6838	61	0	31	6	0	0	6	0	0	0	0	0	0	0	0	0	5	3.0	1.8		
HIGH	H791-6838	15	0	64	1	0	0	1	0	0	0	0	0	0	0	0	0	6	9.6	1.4		
HIGH	H793-6838	26	0	52	7	0	0	7	0	0	0	0	0	0	0	0	0	16	8.8	2.3		
HIGH	H794-6838	44	0	49	2	3	0	2	3	0	0	0	0	0	0	0	0	7	2.8	1.2		
HIGH	H796-6838	36	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2.0	0.7		
HIGH	H798-6838	55	0	42	0	2	0	0	2	0	0	0	0	0	0	0	0	3	3.0	1.7		
HIGH	H799-6838	49	1	48	1	0	0	1	0	0	0	0	0	0	0	0	0	6	1.8	0.9		
HIGH	H800-6838	30	0	54	0	1	0	0	1	0	0	0	0	0	0	0	0	0	4.4	1.3		

**LRR1 Protocol FY01-013**

**Final Differential Counts for Female Rats**

GROUP	ANIMAL	ABSOLUTE BAND NEUTROPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE LYMPHOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE MONOCYTES (nX10 <sup>3</sup> cells/μl)	ABSOLUTE EOSINOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BASOPHILS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE ATYPICAL LYMPHS (nX10 <sup>3</sup> cells/μl)	ABSOLUTE BLASTS (nX10 <sup>3</sup> cells/μl)	POLYCHRO-MASIA (1+ - 4+)	ANISO-CYTOSIS (0 - 4+)
HIGH	H777-6838	0.0	1.6	0.1	0.0	0.0	0.1	0.0	1+	0
HIGH	H778-6838	0.0	31.6	0.0	0.0	0.0	4.4	1.2	2+	2+
HIGH	H779-6838	0.0	1.5	0.0	0.0	0.0	0.1	0.0	1+	0
HIGH	H780-6838	0.0	4.1	0.1	0.1	0.0	0.7	0.0	1+	0
HIGH	H781-6838	0.0	1.2	0.0	0.0	0.0	0.1	0.0	1+	0
HIGH	H782-6838	0.0	0.9	0.0	0.0	0.0	0.0	0.0	1+	0
HIGH	H784-6838	0.0	0.7	0.1	0.0	0.0	0.1	0.0	1+	0
HIGH	H787-6838	0.0	1.8	0.0	0.0	0.0	0.3	0.0	1+	0
HIGH	H788-6838	0.0	1.8	0.1	0.0	0.0	0.2	0.0	1+	0
HIGH	H789-6838	0.0	0.8	0.1	0.1	0.0	0.1	0.0	1+	0
HIGH	H790-6838	0.0	0.9	0.2	0.0	0.0	0.1	0.0	1+	0
HIGH	H791-6838	0.0	6.1	0.1	0.0	0.0	1.8	0.1	2+	2+
HIGH	H793-6838	0.0	4.6	0.6	0.0	0.0	1.1	0.3	1+	0
HIGH	H794-6838	0.0	1.4	0.1	0.1	0.0	0.1	0.0	1+	0
HIGH	H796-6838	0.0	1.2	0.0	0.0	0.0	0.1	0.0	1+	0
HIGH	H798-6838	0.0	1.3	0.0	0.1	0.0	0.0	0.0	1+	0
HIGH	H799-6838	0.0	0.9	0.0	0.0	0.0	0.0	0.0	1+	0
HIGH	H800-6838	0.0	2.4	0.0	0.0	0.0	0.7	0.0	1+	0

**LRRI Protocol FY01-013**

**Final Differential Counts for Female Rats**

GROUP	ANIMAL	Platelet Estimate (adequate, increased, decreased)	Comments
HIGH	H777-6838	adequate	
HIGH	H778-6838	adequate	
HIGH	H779-6838	adequate	
HIGH	H780-6838	adequate	
HIGH	H781-6838	adequate	
HIGH	H782-6838	adequate	
HIGH	H784-6838	adequate	
HIGH	H787-6838	adequate	
HIGH	H788-6838	adequate	
HIGH	H789-6838	adequate	
HIGH	H790-6838	adequate	
HIGH	H791-6838	adequate	1 lymphocyte in the 100 cell differential demonstrated erythro-phagocytosis
HIGH	H793-6838	adequate	
HIGH	H794-6838	adequate	
HIGH	H796-6838	adequate	
HIGH	H798-6838	adequate	
HIGH	H799-6838	adequate	
HIGH	H800-6838	adequate	2 lymphocytes in the 100 cell differential demonstrated erythro-phagocytosis

APPENDIX M

NEOPLASTIC AND NON-NEOPLASTIC LESIONS AND  
GROSS NECROPSY OBSERVATIONS IN MALE RATS

- M-1 Gross Necropsy Observations
- M-2 Lesion Incidence by Animal Number for Microscopic Observations
- M-3 Incidence Summary (with percentages) of Microscopic Observations
- M-4 Tabulated Incidence Summary of Non-neoplastic Lesions
- M-5 Lesion Incidence Summary with Average Severity Grades
- M-6 Raw Data
- M-7 Individual Animal Report of Correlated Gross and Microscopic Diagnoses
- M-8 Histological Comments on Tissue
- M-9 Summary of Missing Tissues
- M-10 Lesion Incidence Summary with K-S (comparison > control)

M-1 Gross Necropsy Observations

Lovelace Respiratory Research Institute  
 Incidence Summary Report for Gross Necropsy Observations by Animal  
 Study number: FY01013M  
 All Sacrifices  
 Study start date: 23-May-01  
 Rat/F344/N  
 Inhalation/whole-bdy/Chronic  
 Printed: 22-Aug-08  
 Page: 1

	Number in group:				Males			
	1	2	3	4	50	50	50	50
Adrenal glands	1	0	0	0	0	0	0	0
Cyst	1	0	0	0	0	0	0	0
Discolored	1	0	0	1	0	0	0	1
Enlarged	2	2	5	4	2	2	5	4
Mass	0	1	0	0	0	1	0	0
Aorta	0	0	0	1	0	0	0	1
Enlarged	0	0	0	1	0	0	0	1
Brain	6	1	2	3	0	0	1	0
Deformity	6	1	2	3	0	0	1	0
Discolored	0	0	1	0	0	0	1	0
Cecum	0	1	0	0	0	1	0	0
Discolored	0	1	0	0	0	1	0	0
Colon	0	0	0	1	0	0	0	1
Mass	0	0	0	1	0	0	0	1
Duodenum	0	0	0	1	0	0	0	1
Discolored	0	0	0	1	0	0	0	1
Eyes/optic nerve	0	1	1	0	0	1	1	0
Crust	0	1	1	0	0	1	1	0
Small	1	0	0	0	1	0	0	0
Discolored	0	0	4	1	0	0	4	1
Heart	0	1	0	0	0	1	0	0
Discolored	0	1	0	0	0	1	0	0
Ileum	1	0	0	0	1	0	0	0
Mass	1	0	0	0	1	0	0	0
Discolored	0	1	0	0	0	1	0	0
Jejunum	2	0	0	0	2	0	0	0
Mass	2	0	0	0	2	0	0	0
Kidneys	0	0	1	1	0	0	1	1
Cyst	0	0	1	1	0	0	1	1
Enlarged	0	1	0	1	0	1	0	1
Mass	0	1	1	1	0	1	1	1
Nodule	0	1	2	0	0	1	2	0
Discolored	7	5	6	14	7	5	6	14

Lovelace Respiratory Research Institute  
 Incidence Summary Report for Gross Necropsy Observations by Animal  
 Study number: FY01013M  
 All Sacrifices  
 Study start date: 23-May-01  
 Rat/F344/N  
 Inhalation/whole-bdy/Chronic  
 Printed: 22-Aug-08  
 Page: 2

	Males			
	1	2	3	4
Number in group:	50	50	50	50
Kidneys				
Mineralization	0	0	0	1
Liver				
Cyst	0	0	1	1
Deformity	0	1	0	0
Enlarged	0	2	1	2
Hernia	1	0	0	2
Mass	2	1	2	0
Nodule	2	2	2	1
Thick	9	6	6	12
Discolored	9	13	13	11
Pituitary gland				
Cyst	0	1	2	0
Deformity	0	0	1	0
Enlarged	3	0	0	4
Mass	4	3	0	1
Nodule	1	3	3	0
Discolored	7	4	7	4
Parathyroid				
Enlarged	0	1	0	0
Salivary gland				
Enlarged	0	0	1	0
Skin				
Alopecia	0	1	0	0
Crust	1	3	3	1
Mass	2	3	4	1
Scar	0	1	0	0
Spleen				
Cyst	0	1	0	0
Deformity	0	1	3	0
Discolored	6	2	2	5
Enlarged	25	28	29	25
Mass	0	0	1	1
Nodule	0	1	1	1
Stomach				
Rupture	1	0	0	0

Lovelace Respiratory Research Institute  
 Incidence Summary Report for Gross Necropsy Observations by Animal  
 Study number: FY01013M  
 All Sacrifices  
 Study start date: 23-May-01  
 Rat/F344/N  
 Inhalation/whole-bdy/Chronic  
 Printed: 22-Aug-08  
 Page: 3

	Number in group:				Males			
	1	2	3	4	50	50	50	50
Testes								
Cyst	1	0	0	0				
Enlarged	2	8	12	14				
Fluid	0	1	0	0				
Mass	6	7	2	5				
Small	2	6	4	6				
Discolored	37	34	47	38				
Thyroid glands								
Enlarged	1	1	3	2				
Mass	0	3	1	1				
Nodule	1	0	0	0				
Discolored	1	1	1	0				
Urinary bladder								
Enlarged	0	0	0	1				
Mass	1	0	0	0				
Lungs								
Discolored	17	23	17	15				
Focus	0	1	0	0				
Mass	1	3	0	1				
Nodule	1	1	3	3				
Epididymis								
Enlarged	0	0	1	0				
Nodule	0	0	0	1				
Small	1	5	1	2				
Discolored	0	1	1	1				
Prostate								
Enlarged	0	0	0	2				
Discolored	0	1	0	0				
Seminal vesicle								
Enlarged	0	1	1	1				
Mass	1	0	0	0				
Small	5	2	9	6				
Thick	0	0	1	0				
Tail								
Amputation	1	0	0	0				
Crust	0	0	1	0				

Lovelace Respiratory Research Institute  
 Incidence Summary Report for Gross Necropsy Observations by Animal  
 Study number: FY01013M  
 All Sacrifices  
 Study start date: 23-May-01  
 Rat/F344/N  
 Inhalation/whole-bdy/Chronic  
 Printed: 22-Aug-08  
 Page: 4

	Males			
	1	2	3	4
Number in group:	50	50	50	50
Tail				
Mass	0	1	0	0
Nodule	0	1	0	0
Bronchial (TBLN)				
Enlarged	6	3	4	6
Discolored	1	2	0	2
Mandibular LN				
Enlarged	6	2	4	2
Discolored	0	2	0	0
Mediastinal LN				
Enlarged	7	3	8	2
Mass	1	0	0	0
Discolored	1	1	1	0
Mesenteric LN				
Enlarged	1	2	2	1
Mammary gland				
Mass	2	4	4	4
Discolored	0	0	1	1
Tiss.not specifi				
Adhesion	0	1	0	0
Enlarged	0	0	0	1
Mass	1	1	2	3
Nodule	0	0	0	3
Perforation	1	0	0	0
Thick	0	1	0	0
Discolored	0	0	1	1
Harderian gland				
Enlarged	1	0	0	0
Discolored	0	1	0	0
Preputial gland				
Enlarged	4	0	2	2
Mass	0	1	1	0
Pancreatic LN				
Enlarged	5	2	2	4

Lovelace Respiratory Incidence Summary Report for Gross Necropsy Observations by Animal Printed: 22-Aug-08  
 Research Institute Study number: FY01013M Page: 5  
 All Sacrifices  
 Rat/F344/N Inhalation/whole-bdy/Chronic  
 Study start date: 23-May-01

	Males			
	1	2	3	4
Number in group:	50	50	50	50
Iliac LN				
Enlarged	3	2	4	2
Lymph node other				
Enlarged	6	6	10	7
Discolored	0	0	0	1
Cavities				
Fluid	1	1	1	2
Popliteal LN				
Enlarged	3	0	2	1
Discolored	0	0	0	1
Thymus				
Mass	1	0	0	1
Discolored	0	0	0	2
Mediastinum				
Mass	1	0	0	0
Mesentery				
Mass	0	1	0	0
Nodule	0	0	1	1
Muscle, skeletal				
Mass	0	2	0	0
Discolored	0	0	1	0
Bone, other				
Enlarged	0	0	0	1
Mass	0	1	0	0
Zymbal's gland				
Mass	0	0	0	1

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Controls from group(s): 1		-- M a l e s --			
	Number in group:	2	3	4	50
	Group:	50	50	50	50
		Ctl's			
Adrenal glands					
Cyst	6831E440				6837H732
Discolored	6831E434				6837H707
Enlarged	6831E424	6833F504	6835G619		6837H712
-	6831E444	6833F509	6835G625		6837H734
-			6835G627		6837H746
-			6835G636		
-	Mass	6833F525	6835G646		
Aorta					
Enlarged					6837H701
Brain					
Deformity	6831E409				6837H711
-	6831E414	6833F531	6835G647		6837H713
-	6831E417		6835G650		6837H735
-	6831E427				
-	6831E434				
-	6831E435				
-	Discolored		6835G611		
Cecum					
Discolored	6833F530				
Colon					
Mass					6837H706
Duodenum					
Discolored					6837H703
Eyes/optic nerve					
Crust					
Small	6831E430	6833F539	6835G615		6837H725
Discolored			6835G601		
-			6835G611		
-			6835G636		
-			6835G648		
Heart					
Discolored	6833F530				

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Controls from group(s): 1	2	3	4
Number in group:	50	50	50
Group:	Males		
Study start date: 23-May-01			
Ileum			
Mass			
Discolored	6831E428		
Jejunum			
Mass			
-	6831E412		
-	6831E428		
Kidneys			
Cyst			
Enlarged			
Mass			
Nodule			
-		6835G609	6837H747
-	6833F520		6837H712
-	6833F546		6837H724
-	6833F543		
-		6835G608	
-	6833F530		6837H703
-	6831E424		6837H705
-	6831E424		6837H706
-	6831E434		6837H708
-	6831E435		6837H708
-	6831E442		6837H712
-	6831E444		6837H713
-			6837H714
-			6837H722
-			6837H725
-			6837H734
-			6837H735
-			6837H736
-			6837H740
-			6837H701
Mineralization			
Liver			
Cyst			
Deformity			
Enlarged			
-	6833F545	6835G618	6837H724
-	6833F503	6835G606	6837H732
-	6833F533		6837H748
-			6837H703
-			6837H718
-	6831E418		
-	6831E415		
-	6831E442		
-	6831E423		
-	6831E427		
-		6835G614	
-		6835G631	
-		6835G606	
-		6835G607	
-			6837H712

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Controls from group(s): 1	-- M a l e s --			
	2	3	4	50
Number in group:	50	50	50	50
Group:	CtIs			
	50			
Liver				
Thick	6831E401	6833F501	6835G616	6837H705
-	6831E416	6833F517	6835G620	6837H708
-	6831E425	6833F521	6835G625	6837H709
-	6831E427	6833F541	6835G627	6837H713
-	6831E432	6833F544	6835G642	6837H715
-	6831E438	6833F548	6835G646	6837H718
-	6831E442			6837H720
-	6831E444			6837H722
-	6831E447			6837H733
-				6837H734
-				6837H742
-				6837H746
Discolored	6831E405	6833F506	6835G605	6837H701
-	6831E410	6833F513	6835G611	6837H703
-	6831E421	6833F518	6835G615	6837H713
-	6831E428	6833F527	6835G622	6837H723
-	6831E431	6833F530	6835G629	6837H724
-	6831E434	6833F532	6835G634	6837H725
-	6831E435	6833F535	6835G637	6837H731
-	6831E445	6833F537	6835G639	6837H739
-		6833F538	6835G640	6837H740
-		6833F542	6835G647	6837H743
-		6833F544	6835G649	6837H747
-		6833F549	6835G649	
-		6833F550	6835G649	
Pituitary gland				
Cyst		6833F503	6835G627	
-			6835G630	
-			6835G650	
Deformity				6837H711
Enlarged	6831E414			6837H713
-	6831E425			6837H715
-	6831E427			6837H742
-				6837H735
Mass	6831E409	6833F520		
-	6831E417	6833F531		
-	6831E434	6833F546		
-	6831E435			
Nodule	6831E407	6833F537	6835G625	
-		6833F547	6835G636	
-		6833F549	6835G644	

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+ Controls from group(s): 1	-- M a l e s --			
	2	3	4	5
Number in group:	50	50	50	50
Group:	CTLs			
	50			
Pituitary gland				
Discolored	6831E403	6833F507	6835G620	6837H704
-	6831E410	6833F511	6835G627	6837H714
-	6831E419	6833F516	6835G634	6837H725
-	6831E420	6833F530	6835G637	6837H746
-	6831E441		6835G638	
-	6831E447		6835G641	
-	6831E448		6835G647	
Parathyroid				
Enlarged		6833F550		
Salivary gland				
Enlarged			6835G604	
Skin				
Alopecia				
Crust	6831E438	6833F546	6835G615	6837H710
-		6833F502	6835G623	
-		6833F518	6835G631	
-		6833F546	6835G605	6837H740
-	6831E439	6833F510	6835G607	
-	6831E440	6833F511	6835G614	
-		6833F543	6835G635	
-		6833F519		
Spleen				
Cyst				
Deformity				
-		6833F538	6835G605	
-		6833F546	6835G615	
-			6835G630	
-			6835G631	6837H703
-	6831E410	6833F521	6835G642	6837H717
-	6831E417	6833F544		6837H720
-	6831E422			6837H726
-	6831E425			6837H747
-	6831E426			
-	6831E432			
-	6831E401			
-	6831E402	6833F501	6835G605	6837H705
-	6831E403	6833F503	6835G606	6837H707
-	6831E403	6833F504	6835G608	6837H708
-	6831E405	6833F506	6835G611	6837H709
-	6831E405	6833F507	6835G612	6837H713
-	6831E410	6833F512	6835G615	6837H715
-	6831E411	6833F513	6835G616	6837H719

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Controls from group(s): 1	--- M a l e s ---			
	2	3	4	50
Number in group:	50	50	50	50
Spleen				
- Enlarged	683F514	683G617	683H720	683H720
-	683F515	683G618	683H722	683H722
-	683F516	683G619	683H723	683H723
-	683F517	683G620	683H725	683H725
-	683F520	683G622	683H727	683H727
-	683F521	683G624	683H731	683H731
-	683F522	683G625	683H733	683H733
-	683F526	683G626	683H734	683H734
-	683F527	683G629	683H737	683H737
-	683F528	683G632	683H738	683H738
-	683F532	683G633	683H740	683H740
-	683F533	683G636	683H741	683H741
-	683F535	683G637	683H742	683H742
-	683F537	683G638	683H743	683H743
-	683F538	683G639	683H744	683H744
-	683F540	683G640	683H746	683H746
-	683F544	683G641	683H748	683H748
-	683F545	683G642	683H750	683H750
-	683F546	683G644		
-	683F548	683G646		
-	683F549	683G648		
-		683G649		
-	683F545	683G604	683H736	683H736
-		683G640	683H712	683H712
Stomach				
- Rupture	683E434			
Testes				
- Cyst	683F505	683G601	683H702	683H702
- Enlarged	683F510	683G610	683H704	683H704
-	683F511	683G613	683H708	683H708
-	683F516	683G621	683H711	683H711
-	683F519	683G628	683H714	683H714
-	683F536	683G634	683H717	683H717
-	683F544	683G635	683H718	683H718
-	683F550	683G638	683H724	683H724
-		683G645	683H726	683H726
-		683G646	683H730	683H730
-		683G647	683H736	683H736
-		683G649	683H741	683H741
-			683H747	683H747

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Controls from group(s): 1	-- M a l e s --			
	2	3	4	50
Enlarged Fluid Mass	683F538	6835G606	6837H749	
	683F509	6835G643	6837H723	
	683F515		6837H732	
	683F527		6837H742	
	683F528		6837H748	
	683F533		6837H748	
	683F533			
	683F533			
	683F545			
Small	683F513	6835G604	6837H718	
	683F519	6835G616	6837H723	
	683F520	6835G642	6837H727	
	683F525	6835G648	6837H733	
	683F531		6837H737	
	683F538		6837H742	
	683F501	6835G601	6837H701	
Discolored	683F501	6835G602	6837H702	
	683F502	6835G603	6837H703	
	683F503	6835G604	6837H704	
	683F504	6835G605	6837H705	
	683F506	6835G607	6837H706	
	683F507	6835G608	6837H707	
	683F508	6835G609	6837H709	
	683F511	6835G612	6837H710	
	683F514	6835G613	6837H710	
	683F516	6835G614	6837H711	
	683F517	6835G615	6837H712	
	683F518	6835G616	6837H713	
	683F521	6835G617	6837H714	
	683F522	6835G618	6837H715	
	683F523	6835G619	6837H719	
	683F523	6835G620	6837H720	
	683F525	6835G622	6837H721	
	683F526	6835G623	6837H722	
	683F529	6835G624	6837H724	
	683F534	6835G624	6837H725	
	683F535	6835G625	6837H727	
	683F536	6835G626	6837H728	
	683F537	6835G627	6837H729	
	683F538	6835G628	6837H730	
	683F539	6835G629	6837H731	
	683F541	6835G630	6837H734	
	683F542	6835G631	6837H735	

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Controls from group(s): 1		--- M a l e s ---			
Number in group:		2	3	4	5
Group:		50	50	50	50
Ctl's		50	50	50	50
Testes					
- Discolored	6831E442	6833F543	6835G632	6837H736	
-	6831E443	6833F544	6835G632	6837H737	
-	6831E444	6833F546	6835G633	6837H738	
-	6831E445	6833F547	6835G635	6837H739	
-	6831E446	6833F548	6835G636	6837H740	
-	6831E447	6833F549	6835G637	6837H743	
-	6831E448		6835G638	6837H745	
-	6831E449		6835G639	6837H746	
-	6831E450		6835G640	6837H749	
-			6835G640	6837H750	
-			6835G642		
-			6835G644		
-			6835G645		
-			6835G646		
-			6835G647		
-			6835G648		
-			6835G649		
-			6835G650		
Thyroid glands					
- Enlarged	6831E430	6833F530	6835G614	6837H710	
-			6835G641	6837H720	
- Mass		6833F520	6835G646	6837H735	
-		6833F526	6835G637		
-		6833F550			
Nodule					
- Discolored	6831E422	6833F544	6835G632		
-	6831E446				
Urinary bladder					
- Enlarged	6831E409			6837H718	
- Mass					
Lungs					
- Discolored	6831E401	6833F503	6835G601	6837H702	
-	6831E402	6833F504	6835G603	6837H709	
-	6831E403	6833F506	6835G606	6837H714	
-	6831E410	6833F507	6835G607	6837H719	
-	6831E411	6833F508	6835G610	6837H720	
-	6831E414	6833F514	6835G611	6837H723	
-	6831E416	6833F518	6835G613	6837H725	
-		6833F521	6835G616	6837H726	

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Controls from group(s): 1		-- M a l e s --			
Number in group:		2	3	4	50
Group:		50	50	50	50
Ctl's		50	50	50	50
Lungs					
- Discolored	6831E420	6833F523	6835G620	6837H727	
-	6831E424	6833F524	6835G621	6837H728	
-	6831E429	6833F527	6835G624	6837H732	
-	6831E430	6833F530	6835G625	6837H739	
-	6831E439	6833F532	6835G636	6837H743	
-	6831E440	6833F535	6835G637	6837H748	
-	6831E441	6833F541	6835G639	6837H750	
-	6831E448	6833F544	6835G640		
-	6831E450	6833F545	6835G644		
-		6833F545			
-		6833F546			
-		6833F548			
-		6833F549			
-		6833F550			
-		6833F550			
-	Focus	6833F515			
-	Mass	6833F511		6837H732	
-		6833F518			
-		6833F536			
-	Nodule	6833F543			
-			6835G604		
-			6835G615		
-			6835G641		
-				6837H712	
-				6837H724	
-				6837H747	
Epi di dym's					
- Enlarged			6835G645		
- Nodule					
- Small	6831E413	6833F506	6835G630	6837H703	
-		6833F525		6837H735	
-		6833F531		6837H740	
-		6833F539			
-		6833F550			
-	Discolored	6833F509	6835G625	6837H712	
Prostate					
- Enlarged				6837H713	
-				6837H718	
- Discolored		6833F546			
Seminal vesicle					
- Enlarged		6833F536	6835G648	6837H718	

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Controls from group(s): 1		-- M a l e s --			
Number in group:		2	3	4	5
Group:		50	50	50	50
Ctl's					
50					
Seminal vesicle					
Mass	6831E427		6835G603		6837H17
Small	6831E415	6833F516	6835G605		6837H726
-	6831E418	6833F527	6835G607		6837H732
-	6831E436		6835G610		6837H733
-	6831E439		6835G615		6837H747
-	6831E440		6835G617		6837H748
-			6835G621		
-			6835G622		
-			6835G643		
-			6835G604		
Thick					
Tail					
Amputation					
Crust	6831E436		6835G602		
Mass		6833F521			
Nodule		6833F505			
Bronchial (TBLN)					
Enlarged		6833F501	6835G616		6837H705
-		6833F507	6835G631		6837H709
-		6833F515	6835G636		6837H722
-			6835G646		6837H723
-					6837H746
-		6833F532			6837H750
-		6833F536			6837H714
-					6837H728
Mandibular LN					
Enlarged		6833F510	6835G604		6837H722
-		6833F515	6835G616		6837H740
-			6835G631		
-			6835G635		
-		6833F506			
-		6833F541			
Di-scolored					
Mediastinal LN					
Enlarged		6833F501	6835G602		6837H705
-		6833F515	6835G604		6837H750
-		6833F543	6835G612		
-			6835G616		

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+ Controls from group(s): 1	-- M a l e s --			
	Number in group:	2 50	3 50	4 50
Mediastinal LN Enlarged	6831E442 6831E444 6831E446		6835G636 6835G637 6835G641 6835G644	
Mass Discolored	6831E427 6831E438	6833F509	6835G620	
Mesenteric LN Enlarged	6831E420	6833F515 6833F543	6835G604 6835G644	6837H723
Mammary gland Mass	6831E404 6831E435	6833F518 6833F529 6833F543 6833F548	6835G617 6835G633 6835G643 6835G649 6835G631	6837H704 6837H711 6837H714 6837H718 6837H732
Tissue, not specific Adhesion Enlarged Mass	6831E406	6833F543 6833F543	6835G602 6835G636	6837H718 6837H712 6837H728 6837H742 6837H703 6837H712 6837H736
Nodule Perforation Thick Discolored	6831E406	6833F546	6835G625	6837H724
Harderian gland Enlarged Discolored	6831E406	6833F546		
Preputial gland Enlarged	6831E410 6831E418 6831E422 6831E443		6835G605 6835G621	6837H736 6837H747

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Controls from group(s): 1	-- M a l e s --			
	2	3	4	50
Number in group:	50	50	50	50
Group:	CtIs			
	50			
Preputial gland	6833F513	6835G608		
Mass				
Pancreatic LN	6831E411	6835G604	6837H709	
Enlarged	6831E416	6835G631	6837H722	
-	6831E424		6837H742	
-	6831E442		6837H750	
-	6831E447			
Iliac LN	6833F501	6835G629	6837H709	
Enlarged	6833F515	6835G636	6837H733	
-		6835G641		
-		6835G644		
Lymph node other	6833F501	6835G602	6837H705	
Enlarged	6833F515	6835G604	6837H707	
-	6833F515	6835G604	6837H709	
-	6833F515	6835G619	6837H713	
-	6833F525	6835G620	6837H723	
-	6833F531	6835G625	6837H727	
-		6835G629	6837H733	
-		6835G636		
-		6835G641		
-		6835G644		
Discolored			6837H746	
Cavities	6833F530	6835G614	6837H703	
Fluid			6837H718	
-				
Popliteal LN	6831E420	6835G604	6837H707	
Enlarged	6831E435	6835G636		
-	6831E442		6837H733	
Discolored				
Thymus	6831E427		6837H723	
Mass				

M-2 Lesion Incidence by Animal Number for Microscopic Observations

Proliferative (including Neoplastic) Lesions



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Controls from group(s): 1	Animal sex:	A f f e c t e d --
T i s u e s W i t h D i a g n o s e s	Dosage group:	-- M a l e s --
Lungs .....	No. in group:	
	Number examined:	
N-Leukemia, mononuclear - invasive involvement	6831E427 6833F532 6835G604 6837H708	
Trachea .....	50 49 50 50	
Hyperplasia, epithelial	6831E430 6833F520	
N-Leukemia, mononuclear	6831E420 6835G604	
6831E438		
Bronchial (TBLN) .....	49 33 28 47	
N-Sarcoma, histiocytic	6833F543	
N-Leukemia, mononuclear	6831E405 6833F501 6835G604 6837H705	
	6831E411 6833F507 6835G616 6837H709	
	6831E416 6833F515 6835G626 6837H722	
	6831E420 6833F532 6835G631 6837H723	
	6831E421 6833F533 6835G636 6837H725	
	6831E427 6833F534 6835G644 6837H746	
	6831E429 6833F537 6835G646 6837H750	
	6831E442 6833F545	
	6831E446 6833F546	
	6831E447	
Thyroid glands .....	50 35 31 50	
Hyperplasia, C-cell, focal	6831E416 6833F538 6837H707	
	6831E417 6833F546 6837H714	
	6831E427 6837H726	
	6831E446 6837H729 6837H741	
	6837H746 6837H750	
Hyperplasia, follicular cell	6835G614	
B-Adenoma, C-cell	6831E403 6833F526 6835G616 6837H713	
	6831E432 6833F529 6835G632 6837H728	
	6831E442 6833F544 6835G641 6837H734	
	6833F550 6835G646	

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03



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		-- Animals Affected --	
		-- Males --	
Controls from group(s): 1	Animal sex:		
Tissues With Diagnoses	Dosage group:	Ctls	
Larynx	No. in group:	50	50
	Number examined:	49	50
	6831E438		6837H742
	6831E444		6837H743
	6831E446		6837H746
	6831E447		6837H747
	6831E448		6837H749
Salivary gland	Number examined:	34	50
M-Leukemia, mononuclear		6835G604	6837H750
		6835G627	
Mandibular LN	Number examined:	32	48
Hyperplasia, lymphoid		6835G635	
N-Leukemia, mononuclear			
	6831E410	6833F501	6837H708
	6831E411	6833F506	6837H709
	6831E415	6833F515	6837H712
	6831E416	6833F517	6837H722
	6831E420	6833F532	6837H723
	6831E424	6833F534	6837H724
	6831E427	6833F537	6837H725
	6831E429	6833F540	6837H733
	6831E438	6833F545	6837H740
	6831E442	6833F546	
	6831E444		
	6831E446		
	6831E447		
Liver	Number examined:	40	50
Hyperplasia, biliary		6835G604	6837H701
	6831E401	6833F501	6837H702
	6831E402	6833F503	6837H704
	6831E403	6833F504	6837H705
	6831E405	6833F506	6837H706
	6831E406	6833F509	6837H707
	6831E407	6833F510	6837H708
	6831E409	6833F511	6837H709
	6831E410	6833F512	6837H710
	6831E411	6833F514	6837H711
	6831E412	6833F515	6837H713
	6831E413	6833F517	6837H715
	6831E414	6833F518	6837H716
	6831E415	6833F521	6837H717
	6831E416	6833F522	

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1		Animal sex:	
T i s s u e s	W i t h	D i a g n o s e s	N o. i n g r o u p:
Liver		Number examined:	
		50	40
		A f f e c t e d	
		50	38
		M a l e s	
		50	3
		F e m a l e s	
		50	4
6831E417	6833F524	6835G623	6837H718
6831E418	6833F527	6835G624	6837H719
6831E419	6833F528	6835G625	6837H720
6831E420	6833F529	6835G626	6837H721
6831E421	6833F530	6835G627	6837H722
6831E422	6833F531	6835G629	6837H723
6831E423	6833F532	6835G631	6837H725
6831E424	6833F533	6835G632	6837H726
6831E425	6833F535	6835G633	6837H727
6831E426	6833F537	6835G634	6837H728
6831E427	6833F538	6835G635	6837H729
6831E428	6833F539	6835G636	6837H730
6831E429	6833F540	6835G637	6837H731
6831E430	6833F541	6835G639	6837H732
6831E431	6833F542	6835G640	6837H733
6831E432	6833F545	6835G641	6837H734
6831E433	6833F546	6835G642	6837H735
6831E434	6833F548	6835G643	6837H736
6831E436	6833F549	6835G644	6837H737
6831E437	6833F550	6835G645	6837H738
6831E438		6835G646	6837H739
6831E440		6835G647	6837H740
6831E441		6835G649	6837H741
6831E442			6837H742
6831E443			6837H743
6831E444			6837H744
6831E445			6837H745
6831E446			6837H746
6831E447			6837H747
6831E448			6837H748
6831E449			6837H749
			6837H750
6831E423	6833F513	6835G606	6837H723
	6833F541	6835G645	6837H724
	6833F544	6835G649	
6831E415		6835G631	6837H747
6831E442			
	6833F543		6837H712

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1		Animal sex:			
T i s s u e s	W i t h	D i a g n o s e s	C t l s		
M-Sarcoma, undifferentiated		-- M a l e s --			
M-Leukemia, mononuclear		-- A n i m a l s A f f e c t e d --			
		C t l s			
		D o s a g e g r o u p:			
		N o . i n g r o u p:			
		N u m b e r e x a m i n e d:			
		6831E401	6833F501	6835G604	6837H703
		6831E402	6833F503	6835G605	6837H705
		6831E403	6833F504	6835G606	6837H707
		6831E405	6833F506	6835G608	6837H708
		6831E409	6833F507	6835G611	6837H709
		6831E410	6833F512	6835G612	6837H712
		6831E411	6833F513	6835G615	6837H713
		6831E415	6833F514	6835G616	6837H715
		6831E416	6833F515	6835G618	6837H717
		6831E419	6833F517	6835G619	6837H719
		6831E420	6833F518	6835G620	6837H720
		6831E421	6833F520	6835G622	6837H722
		6831E423	6833F521	6835G624	6837H723
		6831E424	6833F522	6835G625	6837H724
		6831E426	6833F527	6835G626	6837H725
		6831E427	6833F528	6835G627	6837H726
		6831E429	6833F532	6835G629	6837H727
		6831E432	6833F533	6835G631	6837H729
		6831E438	6833F534	6835G632	6837H731
		6831E441	6833F535	6835G633	6837H733
		6831E442	6833F537	6835G634	6837H734
		6831E444	6833F538	6835G636	6837H737
		6831E445	6833F540	6835G637	6837H738
		6831E446	6833F541	6835G640	6837H740
		6831E447	6833F544	6835G641	6837H741
		6831E448	6833F545	6835G642	6837H742
		6831E450	6833F546	6835G644	6837H743
			6833F548	6835G646	6837H744
			6833F549	6835G649	6837H746
					6837H748
					6837H750
Spleen		50	39	38	50
M-Fibrosarcoma					6837H736
M-Leukemia, mononuclear		6831E401	6833F501	6835G604	6837H703
		6831E402	6833F503	6835G605	6837H705
		6831E403	6833F504	6835G606	6837H707
		6831E405	6833F506	6835G608	6837H708
		6831E409	6833F507	6835G611	6837H709
		6831E410	6833F512	6835G612	6837H712
		6831E411	6833F513	6835G615	6837H713

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03



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Controls from group(s): 1		-- Animals Affected --	
T i s u e s	W i t h D i a g n o s e s	C t l s	M a l e s
Heart		50	50
M-Leukemia, mononuclear		34	30
	6831E405	6833F504	6835G604
	6831E411	6833F507	6835G618
	6831E420	6833F517	6835G631
	6831E427	6833F532	6837H725
	6833F534	6833F534	6837H742
Stomach	.....Number examined:	50	34
Hyperplasia, squamous epithelial		6831E417	30
		6831E434	49
Cecum	.....Number examined:	50	34
N-Leukemia, mononuclear		6831E411	30
		6831E427	48
Urinary bladder	.....Number examined:	50	33
B-Papilloma, transitional cell		6831E409	29
M-Leukemia, mononuclear		6831E427	6837H708
Duodenum	.....Number examined:	50	34
		6831E412	30
		6831E428	48
Ileum	.....Number examined:	50	34
Hyperplasia, lymphoid		6831E425	30
		6831E439	49
B-Fibroma		6831E428	
N-Leukemia, mononuclear		6833F515	

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	Animal sex: -- M a l e s --	A f f e c t e d --
T i s s u e s W i t h D i a g n o s e s	C t l s	
Colon.....	50	30
B-Leiomyoma	50	49
		6837H706
Pancreas .....	50	30
M-Carcinoma, ductal cell		6837H712
M-Leukemia, mononuclear	6831E427	
Rectum .....	50	30
Adrenal glands .....	49	30
Hyperplasia, cortical, diffuse		6835G625
Hyperplasia, medullary, focal	6831E403	6835G608
	6831E407	6837H703
	6831E413	6837H705
	6831E419	6837H708
	6831E429	6837H713
	6831E432	6837H714
	6831E446	6837H715
	6831E449	6837H717
		6837H718
		6837H720
		6837H724
		6837H727
		6837H729
		6837H734
		6837H738
		6837H739
		6837H744
		6837H745
B-Pheochromocytoma, benign	6831E401	6835G619
	6831E416	6837H708
	6831E426	6837H714
	6831E429	6835G622
	6831E442	6835G627
	6831E443	6837H717
	6831E444	6837H734
		6835G642
		6835G646
B-Pheochromocytoma, complex, benign	6831E424	6835G646
M-Pheochromocytoma, malignant	6831E416	
	6831E440	6837H746
	6831E442	

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

		-- A n i m a l s		A f f e c t e d --	
		-- M a l e s --			
Controls from group(s): 1	Animal sex:	Ctl's	2	3	4
T i s s u e s	D o s a g e g r o u p:	50	50	50	50
W i t h D i a g n o s e s	N o . i n g r o u p:	49	35	30	50
.....	N u m b e r e x a m i n e d:	6831E405	6833F538	6835G611	6837H722
M-Leukemia, mononuclear		6831E411		6835G618	6837H725
		6831E447		6835G632	6835G636
Prostate .....	Number examined:	50	33	29	50
Hyperplasia			6835G624		
Epididymis .....	Number examined:	50	36	31	50
M-Mesothelioma, malignant		6833F509		6837H703	6837H736
Seminal vesicle .....	Number examined:	50	35	37	50
Hyperplasia		6833F536			
M-Leukemia, mononuclear		6831E427		6835G604	
Mesenteric LN .....	Number examined:	50	34	30	50
N-Sarcoma, histiocytic		6833F543			
N-Leukemia, mononuclear		6831E410	6833F506	6835G604	6837H720
		6831E411	6833F515	6835G606	6837H722
		6831E420	6833F533	6835G631	6837H723
		6831E424		6835G636	6837H725
		6831E446		6835G644	6837H740
		6831E447		6837H742	
Testes .....	Number examined:	50	50	50	50
Hyperplasia, interstitial cell		6831E417	6833F512	6835G611	6837H718
		6831E427	6833F514	6835G644	6837H744
		6831E431	6833F530	6835G650	
		6831E439	6833F532		
		6831E444	6833F538		
		6833F540			
B-Adenoma, interstitial cell		6831E401	6833F501	6835G601	6837H701
		6831E402	6833F502	6835G602	6837H702
		6831E403	6833F503	6835G603	6837H703
		6831E404	6833F504	6835G604	6837H704
		6831E405	6833F505	6835G605	6837H705

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03



Controls from group(s): 1	-- Animals Affected --		
Animal sex:	-- Males --		
Dosage group:	CtIs		
No. in group:	2	3	
Number examined:	50	50	
M-Mesothelioma, malignant	6833F509	6835G614	6837H703 6837H736
Sciatic nerve	50	34	50
N-Leukemia, mononuclear	6831E429		
Muscle, skeletal	50	34	50
N-Sarcoma, histiocytic	6833F518 6833F543		
M-Leukemia, mononuclear		6835G604	
Mammary gland	36	31	47
Hyperplasia, lobular	6833F520		6837H706 6837H714 6837H718 6837H735 6837H749
B-Fibroadenoma		29	6837H718
B-Fibroma	6831E404 6831E435	6833F529 6833F548	6835G633 6835G643 6835G649
N-Sarcoma, histiocytic	6833F518 6833F543		
Skin	49	37	50
B-Fibroma	6831E439 6831E440		6835G617
B-Keratoacanthoma			6837H714
B-Tumor, basal cell, benign			6837H710
B-Tumor, hair follicle, benign		6835G607	
M-Carcinoma, sebaceous cell	6833F502		

ALL Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1	-- Animals Affected --	
	Male	Female
Animal sex:	2	3
Dosage group:	50	50
No. in group:	49	37
Number examined:	6833F511	6835G614 6835G623
Skin		
M-Sarcoma, undifferentiated		
N-Sarcoma, histiocytic		
	6833F518	
	6833F543	
Brain		
M-Astrocytoma, malignant	50	34
	6833F518	31
		6837H711
Eyes/optic nerve		
M-Leukemia, mononuclear	50	34
	6831E420	6833F515
Bone, femur		
	50	50
	50	50
Spinal cord		
	50	34
	50	30
Nose/Turbinates		
Hyperplasia - respiratory epithelium	50	50
	6831E408	6835G614
	6831E414	6835G638
	6831E433	6835G644
		6837H721
		6837H737
M-Leukemia, mononuclear		
	6831E420	
Nose/Turbinates		
Hyperplasia - respiratory epithelium	50	50
	6833F517	6835G622
	6833F533	6835G638
		6837H719
		6837H721
		6837H746
M-Carcinoma, squamous cell		
	6831E406	
M-Leukemia, mononuclear		
	6831E420	
Nose/Turbinates		
Hyperplasia - respiratory epithelium	50	50
	6833F517	6835G622
	6833F533	6835G638
		6837H719
		6837H721
		6837H746
M-Carcinoma, squamous cell		
	50	50
	6833F539	6837H730
M-Leukemia, mononuclear		
	6831E420	

ALL Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

		-- Animals Affected --	
Controls from group(s): 1	Animal sex:	-- Males --	
Tissues With Diagnoses	Dosage group:	2	3
Nose/Turbinates 4	No. in group:	50	50
N-Carcinoma, squamous cell	Number examined:	50	50
6833F510			6837H730
6833F539			6837H745
M-Leukemia, mononuclear			
6831E420			
Preputial gland	Number examined:	4	1
4		1	3
2		2	4
Pancreatic LN	Number examined:	5	2
N-Leukemia, mononuclear		6831E411	6835G604
6831E416		6833F501	6837H709
6831E424		6833F533	6837H722
6831E442			6837H742
6831E447			6837H750
Iliac LN	Number examined:	3	1
N-Leukemia, mononuclear		6831E411	6835G629
6831E420		6833F501	6837H709
6831E442			6835G636
			6835G644
Lymph node other	Number examined:	6	4
N-Leukemia, mononuclear		6831E416	6835G604
6831E420		6833F501	6837H705
6831E427		6833F515	6837H707
6831E429			6835G619
6831E442			6835G620
			6837H709
			6835G625
			6837H723
			6835G629
			6837H727
			6835G636
			6837H733
Mediastinal LN	Number examined:	49	30
N-Sarcoma, histiocytic		6833F543	30
N-Leukemia, mononuclear			50
6831E410		6833F501	6835G604
6831E411		6833F515	6837H705
6831E420		6833F518	6837H707
6831E427		6835G631	6837H708
6831E429		6835G636	6837H709
6831E442		6833F532	6837H722
6831E444		6833F533	6837H723
6831E446		6833F534	6837H725
6831E447		6833F545	6837H725
			6837H750

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		Animal sex:		A f f e c t e d --	
T i s s u e s	W i t h D i a g n o s e s	C t l s	-- M a l e s --		
Pituitary gland	.....Number examined:	49	37	34	50
Hyperplasia, pars distalis, focal					
		6831E401	6833F509	6835G637	6837H705
		6831E405	6833F514	6835G641	6837H712
		6831E410	6833F516	6835G646	6837H714
		6831E417	6833F539		6837H716
		6831E427			6837H718
					6837H719
					6837H745
					6837H746
B-Adenoma, pars distalis		6831E407	6833F504	6835G625	6837H704
		6831E409	6833F511	6835G634	6837H711
		6831E414	6833F516	6835G636	6837H713
		6831E417	6833F520	6835G644	6837H716
		6831E425	6833F530	6835G647	6837H735
		6831E430	6833F531	6835G650	
		6831E434	6833F546		
		6831E435	6833F547		
		6831E441	6833F549		
M-Leukemia, mononuclear		6831E427	6833F503	6835G604	6837H725
Tiss.not specifi	.....Number examined:	1	2	3	5
B-Fibroma				6835G602	
B-Lipoma		6831E406			6837H728
M-Mesothelioma, malignant					6837H703
					6837H736
N-Sarcoma, histiocytic			6833F543		
Harderian gland	.....Number examined:	1	0	0	0
N-Carcinoma, squamous cell		6831E406			
Thymus	.....Number examined:	1	0	0	2
M-Leukemia, mononuclear		6831E427			6837H723

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1	-- Animals Affected --	
	Male	Female
Animal sex:		
Dosage group:	2	3
No. in group:	50	50
Number examined:	0	0
6831E427		
N-Leukemia, mononuclear		
Tail	1	1
Hyperplasia/hyperkeratosis	6833F505	6835G602
	6833F521	
Popliteal LN	2	2
N-Leukemia, mononuclear	6831E420	6835G604
	6831E442	6835G636
		6837H707
		6837H733
Bone, other	0	1
M-Sarcoma, NOS		6837H721
Zymbal's gland	0	0
M-Carcinoma, squamous cell		6837H716
Mesentery	0	1
M-Mesothelioma, malignant		6835G614

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Non-neoplastic Lesions

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Controls from group(s): 1		-- Animals Affected --	
T i s u e s	W i t h	D i a g n o s e s	Animal sex: -- M a l e s --
		Ctl's	2 3 4
		50	50 50 50
Lungs		50	50 50 50
Alveolar histiocytosis		6831E415	6833F504 6835G602 6837H701
		6831E417	6833F509 6835G603 6837H706
		6831E420	6833F513 6835G609 6837H709
		6831E428	6833F525 6835G616 6837H717
		6831E433	6833F531 6835G622 6837H722
		6831E440	6833F539 6835G629 6837H728
		6831E449	6833F540 6835G632 6837H730
			6833F547 6835G633 6837H737
			6833F548 6835G646 6837H740
			6833F550 6835G649 6837H747
			6837H732
Autolysis, marked			
Congestion		6833F524	
		6833F541	
Fibrosis, focal		6831E429	6837H724
Hemorrhage		6831E402	6835G607 6837H740
		6831E403	6833F521 6835G610
		6831E440	6833F523 6835G611
			6833F535 6835G616
			6833F544 6835G624
			6833F545 6835G644
			6833F550 6835G646
Metaplasia, squamous - alveolar epithelium		6833F525	
		6833F536	
Mineralization, uremic			6837H701
Cyst, squamous cell, keratinizing			6837H732
Inflammation, acute		6831E414	6835G636 6837H745
Inflammation, mixed		6831E430	6835G602 6837H710
			6835G607 6837H711
			6835G609
			6835G633
			6835G637
Inflammation, granulomatous		6833F507	6835G634 6837H749
		6833F525	6835G635

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

		-- Animals Affected --	
		-- Males --	
Controls from group(s): 1	Animal sex:		
T i s s u e	Dosage group:	CtIs	
W i t h	No. in group:	50	50
D i a g n o s e s	Number examined:	49	50
Trachea	6831E414		
Metaplasia, squamous			
Inflammation, acute	6833F508		
Inflammation, mixed	6831E430 6833F520		6837H701 6837H703 6837H710 6837H740
Inflammation, chronic	6831E439 6833F539 6835G617 6837H717 6833F541		
Bronchial (TBLN)	49	33	47
Hemorrhage	6833F536 6837H714 6833F548 6837H728 6833F549		
Thyroid glands	50	35	31
Cyst, follicular	6831E407 6833F528		6835G608 6837H721 6835G633 6837H725 6835G637 6837H741
Parathyroid	45	33	30
Aorta	50	34	30
Dilatation			6837H701
Esophagus	50	33	30
Larynx	50	49	50
Ulceration	6831E432		
Inflammation, mixed	6831E401 6833F501 6835G601 6837H701 6831E402 6833F502 6835G602 6837H702 6831E403 6833F503 6835G603 6837H703 6831E404 6833F504 6835G604 6837H704 6831E405 6833F505 6835G605 6837H705 6831E407 6833F507 6835G606 6837H706 6831E408 6833F508 6835G607 6837H707 6831E409 6833F510 6835G608 6837H708 6831E410 6833F511 6835G609 6837H709		

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03



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Controls from group(s): 1		-- Animals Affected --	
Animal sex:	Animal sex:	Male	Female
Dosage group:	Dosage group:	2	3
No. in group:	No. in group:	50	50
Number examined:	Number examined:	49	50
Larynx	6831E428	6835G645	6837H726
	6831E430	6835G648	6837H739
	6831E432		
	6831E442		
Salivary gland	50	34	50
Degeneration			6837H715
Inflammation, acute			6837H701
Mandibular LN	40	32	48
Hemorrhage	6831E422		
Sinus plasmacytosis	6831E407		
Liver	50	40	50
Angiectasis	6831E402	6833F509	6835G605
	6831E409	6833F535	6837H701
	6831E411	6833F548	6837H704
	6831E416	6833F550	6837H706
	6831E419		6837H710
	6831E424		6837H713
	6831E426		6837H717
	6831E432		6837H722
	6831E436		6837H723
	6831E438		6837H724
	6831E442		6837H725
	6831E445		6837H726
	6831E446		6837H728
	6831E447		6837H733
	6831E449		6837H734
Congestion			6837H740
Cyst			6837H741
Fatty Change	6831E434	6833F511	6837H742
	6831E435		6837H748
			6837H732
			6835G618
			6835G634

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1		Animal sex:		Affected	
T i s s u e s	W i t h	D i a g n o s e s	--	M a l e s	--
Liver	.....	.....	.....	.....	.....
Foci of cellular alteration, basophilic		No. in group:	.....	.....	.....
Hepatodiaphragmatic nodule		Number examined:	.....	.....	.....
		6831E437	6833F529	40	38
		6831E418	6833F520	6835G614	6837H703 6837H745
Necrosis		6831E403	6833F512	6835G608	6837H723
		6831E414	6833F530	6835G619	6837H727
		6831E415	6833F538		6837H740
			6833F546		6837H743
Thrombus					6837H750
Vacuolization, cytoplasmic		6831E427	6833F514	6835G649	6837H704
			6833F530		6837H726
			6833F540		6837H730
Inflammation, chronic		6831E404	6833F548		6837H717
		6831E407			6837H726
		6831E417			6837H728
		6831E428			6837H730
		6831E430			6837H736
		6831E433			6837H749
		6831E440			
Spleen	.....	50	39	38	50
Congestion	.....		6833F514	6835G617	
Fibrosis		6831E410	6833F517	6835G605	
		6831E425	6833F546	6835G615	
		6831E432		6835G630	
				6835G638	
				6835G640	
Hemorrhage			6833F538		
Necrosis		6831E403	6833F521	6835G615	6837H720
		6831E426	6833F528		

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Controls from group(s): 1	Animal sex:	Animal sex:	A f f e c t e d --
T i s s u e s W i t h D i a g n o s e s	Dosage group:	-- M a l e s --	
Kidneys .....	No. in group:	2	3
Cyst	Number examined:	50	50
	6833F528	50	50
	6835G605		
	6835G634		
Degeneration, hyaline droplet	6833F543		
Infarct	6835G611		
	6835G627		
Nephropathy, chronic	6833F501		6837H701
	6833F502		6837H702
	6833F503		6837H703
	6833F504		6837H704
	6833F505		6837H705
	6833F506		6837H706
	6833F507		6837H707
	6833F508		6837H708
	6833F509		6837H709
	6833F510		6837H710
	6833F511		6837H711
	6833F512		6837H712
	6833F513		6837H713
	6833F514		6837H714
	6833F515		6837H716
	6833F516		6837H718
	6833F517		6837H719
	6833F518		6837H720
	6833F519		6837H721
	6833F520		6837H722
	6833F521		6837H723
	6833F522		6837H724
	6833F523		6837H725
	6833F525		6837H726
	6833F526		6837H727
	6833F527		6837H728
	6833F528		6837H729
	6833F530		6837H731
	6833F531		6837H732
	6833F532		6837H733
	6833F533		6837H734
	6833F534		6837H735
	6833F535		6837H736
	6833F536		6837H738
	6833F537		6837H739
	6833F538		6837H740
	6833F539		6837H741

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals		Affected --	
	CtIs	2	3	4
Tissues With Diagnosis	50	50	50	50
Kidneys	50	50	50	50
Animal sex:				
Dosage group:				
No. in group:				
Number examined:				
6831E444	6833F541	6835G638	6837H742	
6831E445	6833F542	6835G639	6837H743	
6831E446	6833F543	6835G640	6837H744	
6831E447	6833F544	6835G641	6837H745	
6831E448	6833F545	6835G642	6837H746	
6831E449	6833F546	6835G643	6837H747	
6831E450	6833F547	6835G644	6837H748	
	6833F548	6835G645	6837H749	
	6833F549	6835G646	6837H750	
	6833F550	6835G647		
		6835G648		
		6835G649		
		6835G650		
Pigment accumulation, tubular epithelium	6831E403	6833F506	6835G646	6837H703
	6831E426	6833F509		6837H719
	6831E438	6833F540		6837H746
Inflammation, acute	6833F539	6835G625	6835G636	
Heart	50	34	30	50
Degeneration, myocyte	6831E420	6833F546	6835G608	6837H701
	6831E432		6835G616	6837H706
			6835G624	6837H733
Fibrosis	6831E407	6833F517	6835G625	6837H701
	6831E414	6833F518	6835G642	6837H709
	6831E421	6833F522		6837H717
	6831E437	6833F538		6837H742
	6831E442	6833F541		
Thrombus	6833F530		6835G608	6837H731
			6835G625	6837H746
Inflammation, acute			6835G636	
Inflammation, focal, chronic	6831E401	6833F509	6835G606	6837H701
	6831E404	6833F520	6835G622	6837H702
	6831E408	6833F522	6835G626	6837H704
	6831E410	6833F527	6835G627	6837H705
	6831E413	6833F529	6835G632	6837H714
	6831E416	6833F530	6835G633	6837H715
	6831E418	6833F531	6835G641	6837H716

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1		-- Animals		Affected --	
T i s s u e s	W i t h	D i a g n o s e s	C t l s	-- M a l e s --	
			No. in group:		
			Number examined:		
Heart			50	34	30
			6831E421	6833F544	6835G643
			6831E423	6833F545	6835G644
			6831E424		6835G645
			6831E425		6837H728
			6831E428		6837H729
			6831E431		6837H730
			6831E438		6837H731
			6831E439		6837H741
			6831E441		6837H747
			6831E444		6837H748
			6831E448		6837H749
			6831E450		6837H750
Stomach			50	34	30
		Inflammation, mixed	6831E417	6833F539	
			6831E434		49
Cecum			50	34	30
			50		48
Urinary bladder			50	33	29
		Hemorrhage			6837H718
					6837H725
		Inflammation, mixed			
					6837H704
		Inflammation, chronic			6837H739
					6837H741
Duodenum			50	34	30
			50		49
Jejunum			50	34	30
			50		48
Ileum			50	34	30
			50		49
Colon			50	34	30
		Inflammation, mixed	6831E450		49

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1	Animal sex: --	Animals	Affected
Tissues With Diagnosis	Ctls	Males	
Pancreas	No. in group: 50	50	50
	Number examined: 34	34	49
Rectum	50	34	50
Adrenal glands	49	35	50
			6837H718
Degeneration, cytoplasmic vacuolization	6831E409	6833F507	6835G619
	6831E415	6833F534	6835G625
	6831E418		6837H724
	6831E435		6837H726
	6831E436		6837H737
Necrosis		6835G611	6837H725
Thrombus	6831E426	6833F537	6837H707
	6831E445	6833F544	6837H718
			6837H734
			6837H741
			6837H743
Prostate	50	33	50
Atrophy	6831E419		6837H705
	6831E436		6837H708
	6831E440		6837H722
			6837H726
			6837H729
Hemorrhage			6837H718
Mineralization	6831E445		
Inflammation, acute	6831E402	6833F540	
	6831E406		
Inflammation, mixed	6831E407	6833F504	6835G608
	6831E410	6833F512	6835G611
	6831E415	6833F520	6835G616
	6831E417	6833F522	6835G618
	6831E421	6833F530	6835G619
	6831E427	6833F531	6835G625
	6831E430	6833F533	6837H711
	6831E431	6833F538	6837H713
	6831E434	6833F539	6837H718
	6831E435	6833F545	6837H719
			6835G632
			6835G636
			6837H725

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1		Animal sex:			
T i s s u e s	W i t h	D i a g n o s e s	N o. i n g r o u p:		
Prostate		Number examined:			
		50	33		
		6831E437	6833F546	6835G640	6837H727
		6831E442	6833F549	6835G641	6837H735
		6831E443		6835G642	6837H738
		6831E444		6835G643	
		6831E447		6835G645	
				6835G650	
Epididymis		50	36	31	50
Atrophy		6831E413	6833F506	6835G630	6837H705
		6831E419	6833F525		6837H722
		6831E436	6833F531		6837H726
		6831E440	6833F539		6837H728
			6833F550		6837H729
					6837H735
					6837H740
Granuloma, sperm			6833F537		
Inflammation, chronic		6831E433		6835G642	
		6831E442			
Seminal vesicle		50	35	37	50
Atrophy		6831E413	6833F516	6835G603	6837H705
		6831E414	6833F527	6835G605	6837H708
		6831E415		6835G607	6837H710
		6831E418		6835G610	6837H717
		6831E419		6835G615	6837H722
		6831E420		6835G617	6837H724
		6831E422		6835G621	6837H725
		6831E426		6835G643	6837H726
		6831E427			6837H728
		6831E436			6837H729
		6831E439			6837H733
		6831E440			6837H734
		6831E442			6837H735
		6831E443			6837H736
		6831E446			6837H741
					6837H743
					6837H747
					6837H748

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals Affected --		
Animal sex:	-- Males --		
Dosage group:	Ctl's		
No. in group:	2	3	
Number examined:	50	50	
Seminal vesicle	6833F536	6835G648	50
Dilatation			37
			50
Mesenteric LN	6831E437		50
Hemorrhage			34
			30
Histiocytosis, sinus	6831E428		50
Testes			50
Atrophy	6831E446		50
			50
	6833F513	6835G604	50
	6833F519	6835G616	50
	6833F531	6835G642	50
	6833F538		50
			6837H718
			6837H723
			6837H727
			6837H737
			6837H742
Hemorrhage	6833F508		6837H716
Sciatic nerve			50
			34
			30
Muscle, skeletal			50
Inflammation, chronic			34
			30
			6835G623
Mammary gland			36
Cyst			31
			29
			6835G631
Ectasia	6831E414		6837H711
Skin			49
Cyst, epithelial inclusion			37
			35
Fibrosis	6831E435	6833F510	50
		6833F519	6837H740
Hyperkeratosis	6831E438	6833F519	6835G615
			6835G631
Necrosis	6833F518		6835G605
Inflammation, mixed	6833F510	6835G605	6835G635
	6833F519	6835G635	6833F546

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1	Animal sex: --	Animals	Affected
Tissues With Diagnosis	Ctls	Males	
Skin.....	50	50	50
Inflammation, chronic	49	37	35
Brain.....	50	34	31
Compression	6831E409	6833F531	6835G647
	6831E414	6833F546	6835G650
	6831E417		6837H711
	6831E427		6837H713
	6831E434		6837H735
	6831E435		
Ectasia, ventricular system	6831E427		
	6831E434		
Edema			6837H720
Gliosis	6831E431		
Hemorrhage	6831E403		6835G611
			6835G625
Mineralization			6837H724
Necrosis			6837H733
Inflammation, acute			6835G625
			6835G636
Inflammation, chronic	6831E431		
Eyes/optic nerve.....	50	34	33
Atrophy	6831E430		50
Atrophy, retinal, unilateral	6831E445		6835G601
			6835G645
			6835G648
Cataract	6831E445		6835G601
			6835G645
			6835G648
Degeneration	6831E430		

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	Animal sex:	Affected
T i s s u e s    W i t h    D i a g n o s e s	C t l s	M a l e s
Eyes/optic nerve .....	50	33
Metaplasia, osseous, scleral	50	34
Mineralization, corneal stromal	6831E402 6831E412 6831E436	6835G636 6835G648
Mineralization, scleral	6831E405 6831E424 6831E429	6833F522 6835G618 6835G620 6835G622 6835G641 6835G646 6835G650
Neovascularization, corneal	6831E415 6831E422 6831E448	6835G645 6835G648
Inflamation, acute	6831E422	6835G636
Inflammation, mixed	6831E422 6833F510 6833F539	6837H718
Inflammation, chronic		6835G635
Bone, femur .....	50	50
New bone formation, endosteal	6831E402	6833F534 6837H743
Inflamation, acute		6837H743
Spinal cord .....	50	30
Degeneration, white matter	6831E427	
Hemorrhage	6831E403	6835G611
Inflamation, acute		6835G636

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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Controls from group(s): 1		Animal sex:		Affected	
Tissue	Wit h D i a g n o s e s	Ctl s	-- M a l e s --		
Nose/Turbinate 1	.....Number examined:	50	50	50	50
Degeneration - respiratory epithelium		6831E433			
Degeneration, hyaline - respiratory epithelium				6835G615	6837H707
				6835G617	6837H710
				6835G622	6837H748
				6835G625	
				6835G641	
Metaplasia, squamous - respiratory epithelium				6835G638	
		6831E427		6833F521	
		6831E444		6833F531	
		6831E446			
Metaplasia, squamous - transitional epithelium					
Inflammation, mixed					
		6831E406		6833F504	6837H707
		6831E412		6835G622	6837H718
		6831E414		6835G629	6837H719
		6831E427		6833F539	6837H721
		6831E430		6835G635	6837H737
		6831E432		6835G636	6837H741
		6831E446		6835G638	6837H741
				6835G647	
				6835G649	
Inflammation - nasolacrimal duct					
		6831E407		6833F502	6837H707
		6831E410		6833F504	6837H718
		6831E416		6833F510	6837H721
		6831E422		6833F514	6837H723
		6831E424		6835G611	6837H728
		6831E431		6835G612	6837H729
		6831E433		6833F527	6837H731
		6831E440		6835G622	6837H741
		6831E443		6833F539	6837H744
		6831E444		6833F542	6837H746
		6831E449		6833F546	6837H748
				6835G631	6837H748
				6835G635	6837H748
				6835G637	6837H749
				6835G641	
				6835G643	
				6835G644	
Inflammation - respiratory epithelium					
		6831E444			6837H701

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Animals Affected --	
T i s u e s	W i t h D i a g n o s e s	CtIs	M a l e s
Nose/Turbinates 2	.....	50	3
Degeneration - olfactory epithelium	.....	50	50
Degeneration, hyaline - olfactory epithelium	.....	6831E433	50
Degeneration - respiratory epithelium	.....	6833F512	6835G606
Degeneration, hyaline - respiratory epithelium	.....	6833F517	6835G615
Metaplasia, secretory - olfactory epithelium	.....	6833F531	6837H730
Metaplasia, squamous - olfactory epithelium	.....	6833F532	6837H736
Metaplasia, squamous - respiratory epithelium	.....	6833F534	6837H741
Inflammation, mixed	.....		6837H748
			6837H750
			6835G629
			6835G630
			6835G610
		6833F549	6835G617
			6837H710
			6837H741
			6837H745
		6833F531	
		6833F542	
			6835G638
		6833F517	6835G610
		6833F518	6837H701
		6833F531	6837H719
		6833F540	6837H721
		6833F542	6837H736
		6833F546	6837H746
		6831E414	
		6831E430	
		6831E442	
		6831E446	
		50	50
Nose/Turbinates 3	.....	6833F534	6835G610
Degeneration, hyaline - olfactory epithelium	.....	6831E402	6837H710
		6831E405	6837H714
			6837H721
			6837H726
			6837H741
			6837H745
			6835G641
			6835G642
		6833F539	6835G638
		6831E414	6837H701
		6831E430	6837H736
		6831E435	6837H747
		6831E446	

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	Animal sex: --	Animals	Affected
Tissue With Diagnosis	Ctls	2	3
Nose/Turbinates 4	50	50	50
Degeneration - olfactory epithelium	50	50	50
Degeneration, hyaline - olfactory epithelium		6835G638	
Inflammation, mixed		6835G617	6837H741
		6835G638	6837H701
			6837H747
Preputial gland	4	1	3
Cyst, epithelial inclusion			6835G608
Ectasia		6833F513	6835G605
			6835G621
Inflammation, chronic			6837H747
Inflammation, mixed			6837H736
			6837H747
Pancreatic LN	5	2	2
Iliac LN	3	1	4
Dilatation, sinusoidal			6835G641
Lymph node other	6	4	9
Dilatation, sinusoidal		6833F531	
Infiltration, histiocytic		6833F525	6835G602
Sinus plasmacytosis			6837H713
Mediastinal LN	49	30	30
Hemorrhage		6833F548	6835G602
			6837H726
			6835G620
Pigmentation		6833F509	

ALL Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Animals		Affected --	
Animal sex:	Animal sex:	Male	Female	Male	Female
Dosage group:	Dosage group:	2	3	3	4
No. in group:	No. in group:	50	50	50	50
Number examined:	Number examined:	37	34	34	50
Tissues with Diagonoses	CtIs				
Pituitary gland	49				6837H711
Angiectasis	6831E404				6837H740
	6831E406				6837H746
Cyst	6831E419	6833F512	6835G616	6837H707	
	6831E426	6833F515	6835G620	6837H709	
	6831E437	6833F517	6835G622	6837H724	
	6831E447	6833F534	6835G627	6837H738	
		6833F537	6835G638	6837H739	
		6833F538	6835G641	6837H742	
		6833F544	6835G645		
Hemorrhage	6831E403			6837H714	
	6831E419			6837H742	
	6831E438				
Inflammation, chronic				6837H750	
Tiss.not specifi	1	2	3	5	
Cyst				6837H718	
Mammary tissue			6835G625		
Myodegeneration		6833F546			
Inflammation, mixed			6835G636		
Splenic tissue, "accessory"				6837H742	
Harderian gland	1	0	0	0	
Thymus	1	0	0	0	
Hemorrhage					6837H712
Mediastinum	1	0	0	0	

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Lesion Incidence by Animal Number for Microscopic Observations  
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Controls from group(s): 1	Animal sex:	Animal sex:	Animal sex:
T i s u e s   W i t h   D i a g n o s e s	CtIs	-- M a l e s --	A f f e c t e d --
Tail	No. in group:	2	3
Cyst, epithelial inclusion	Number examined:	50	50
		1	1
	6833F505	2	0
Inflammation, acute	6831E436		
Inflammation, mixed	6833F505		2
	6833F521		6835G602
Popliteal LN		2	0
Bone, other		0	1
Hyperostosis	6833F543		0
Zymbal's gland		0	0
Mesentery		0	1
Inflammation, mixed	6833F505		1

ALL Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

M-3 Incidence Summary (with percentages) of Microscopic Observations

Proliferative (including Neoplastic) Lesions

Controls from group(s): 1		-- Animals		Affected --	
T i s u e s	W i t h D i a g n o s e s	C t l s	M a l e s		
Lungs	.....Number examined:	50	50	50	50
Hyperplasia, alveolar epithelial, focal		8	7	2	4
		16%	14%	4%	8%
Hyperplasia, alveolar epithelial, widespread		1	1	0	0
		2%	2%	0%	0%
B-Adenoma, bronchiolo-alveolar		1	0	1	0
		2%	0%	2%	0%
N-Sarcoma, histiocytic		0	2	0	0
		0%	4%	0%	0%
N-Leukemia, mononuclear - capillary involvement		24	31	32	25
		48%	62%	64%	50%
N-Leukemia, mononuclear - invasive involvement		1	1	1	1
		2%	2%	2%	2%
Trachea	.....Number examined:	50	49	50	50
Hyperplasia, epithelial		1	1	0	0
		2%	2%	0%	0%
N-Leukemia, mononuclear		2	0	1	0
		4%	0%	2%	0%
Bronchial (TBLN)	.....Number examined:	49	33	28	47
N-Sarcoma, histiocytic		0	1	0	0
		0%	3%	0%	0%
N-Leukemia, mononuclear		10	9	7	7
		20%	27%	25%	15%
Thyroid glands	.....Number examined:	50	35	31	50
Hyperplasia, C-cell, focal		4	2	0	7
		8%	6%	0%	14%
Hyperplasia, follicular cell		0	0	1	0
		0%	0%	3%	0%
B-Adenoma, C-cell		3	4	4	3
		6%	11%	13%	6%
B-Adenoma, follicular cell		2	0	0	3
		4%	0%	0%	6%

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		Animal sex:	
T i s u e s	W i t h	D i a g n o s e s	C t l s
		-- M a l e s --	
		No. in group:	A f f e c t e d --
		Number examined:	
Thyroid glands		50	31
M-Carcinoma, C-cell		0	0
		0%	0%
M-Carcinoma, follicular cell		1	1
		2%	3%
Parathyroid		45	30
Hyperplasia, diffuse		0	0
		0%	0%
Hyperplasia, focal		0	0
		0%	0%
Aorta		50	30
N-Leukemia, mononuclear - invasive involvement		1	0
		2%	0%
Esophagus		50	30
Larynx		50	50
Hyperplasia, epithelial		24	15
		48%	30%
Salivary gland		50	30
M-Leukemia, mononuclear		0	2
		0%	7%
Mandibular LN		40	30
Hyperplasia, lymphoid		1	1
		3%	3%
N-Leukemia, mononuclear		13	9
		33%	30%
Liver		50	38
Hyperplasia, biliary		45	37
		90%	97%
Hyperplasia, hepatocellular, regenerative		1	3
		2%	8%
B-Adenoma, hepatocellular		1	1
		2%	3%

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnoses	CtIs	Males	3	4
		No. in group:	50	50	50
		Number examined:	40	38	50
Liver	M-Carcinoma, hepatocellular	1	0	0	0
		2%	0%	0%	0%
	M-Sarcoma, histiocytic	0	1	0	1
		0%	3%	0%	2%
	M-Sarcoma, undifferentiated	0	0	1	0
		0%	0%	3%	0%
	M-Leukemia, mononuclear	27	29	29	31
		54%	73%	76%	62%
	Spleen	50	39	38	50
	M-Fibrosarcoma	0	0	0	1
		0%	0%	0%	2%
	M-Leukemia, mononuclear	27	31	31	31
		54%	79%	82%	62%
	N-Sarcoma, histiocytic	0	0	0	1
		0%	0%	0%	2%
	Kidneys	50	50	50	50
	B-Adenoma, renal tubule	0	0	6	2
		0%	0%	12%	4%
	M-Carcinoma, renal tubule	0	1	0	1
		0%	2%	0%	2%
	M-Leukemia, mononuclear	4	3	1	1
		8%	6%	2%	2%
	Heart	50	34	30	50
	M-Leukemia, mononuclear	4	5	3	5
		8%	15%	10%	10%
	Stomach	50	34	30	49
	Hyperplasia, squamous epithelial	2	0	0	0
		4%	0%	0%	0%

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Animal sex:	2	3	3	4
Dosage group:	50	50	50	50
No. in group:	50	34	30	48
Number examined:	2	0	0	0
	4%	0%	0%	0%
N-Leukemia, mononuclear	50	33	29	50
Urinary bladder	1	0	0	0
B-Papilloma, transitional cell	2%	0%	0%	0%
M-Leukemia, mononuclear	1	1	0	1
	2%	3%	0%	2%
Duodenum	50	34	30	49
Jejunum	50	34	30	48
M-Adenocarcinoma	2	0	0	0
	4%	0%	0%	0%
Ileum	50	34	30	49
Hyperplasia, lymphoid	2	0	0	0
	4%	0%	0%	0%
B-Fibroma	1	0	0	0
	2%	0%	0%	0%
N-Leukemia, mononuclear	0	1	0	0
	0%	3%	0%	0%
Colon	50	34	30	49
B-Leiomyoma	0	0	0	1
	0%	0%	0%	2%
Pancreas	50	34	30	49
M-Carcinoma, ductal cell	0	0	0	1
	0%	0%	0%	2%
M-Leukemia, mononuclear	1	0	0	0
	2%	0%	0%	0%
Rectum	50	34	30	50

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Animals		Affected --	
T i s u e s	W i t h D i a g n o s e s	CtIs	Males	3	4
Adrenal glands		50	50	50	50
Hyperplasia, cortical, diffuse		49	35	30	50
		0	0	1	0
		0%	0%	3%	0%
Hyperplasia, medullary, focal		8	2	5	17
		16%	6%	17%	34%
B-Pheochromocytoma, benign		7	4	5	7
		14%	11%	17%	14%
B-Pheochromocytoma, complex, benign		1	1	0	0
		2%	3%	0%	0%
M-Pheochromocytoma, malignant		3	0	0	1
		6%	0%	0%	2%
M-Leukemia, mononuclear		3	1	4	2
		6%	3%	13%	4%
Prostate		50	33	29	50
Hyperplasia		0	0	1	0
		0%	0%	3%	0%
Epididymis		50	36	31	50
M-Mesothelioma, malignant		0	1	0	2
		0%	3%	0%	4%
Seminal vesicle		50	35	37	50
Hyperplasia		0	1	0	0
		0%	3%	0%	0%
M-Leukemia, mononuclear		1	0	1	0
		2%	0%	3%	0%
Mesenteric LN		50	34	30	50
N-Sarcoma, histiocytic		0	1	0	0
		0%	3%	0%	0%
N-Leukemia, mononuclear		6	3	5	6
		12%	9%	17%	12%

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnoses	Male	Female	Male	Female
		CtIs	3	3	4
		No. in group:	50	50	50
		Number examined:	50	50	50
Testes	Hyperplasia, interstitial cell	5	6	3	2
		10%	12%	6%	4%
B-Adenoma, interstitial cell		43	47	48	50
		86%	94%	96%	100%
M-Mesothelioma, malignant		0	1	1	2
		0%	2%	2%	4%
Sciatic nerve		50	34	30	50
N-Leukemia, mononuclear		1	0	0	0
		2%	0%	0%	0%
Muscle, skeletal		50	34	30	50
N-Sarcoma, histiocytic		0	2	0	0
		0%	6%	0%	0%
M-Leukemia, mononuclear		0	0	1	0
		0%	0%	3%	0%
Mammary gland		36	31	29	47
Hyperplasia, lobular		0	1	0	5
		0%	3%	0%	11%
B-Fibroadenoma		0	0	0	1
		0%	0%	0%	2%
B-Fibroma		2	2	3	1
		6%	6%	10%	2%
N-Sarcoma, histiocytic		0	2	0	0
		0%	6%	0%	0%
Skin		49	37	35	50
B-Fibroma		2	0	1	0
		4%	0%	3%	0%
B-Keratoacanthoma		0	0	0	1
		0%	0%	0%	2%
B-Tumor, basal cell, benign		0	0	0	1
		0%	0%	0%	2%

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Animal sex:	2	3	4	
Dosage group:	50	50	50	50
No. in group:	49	37	35	50
Number examined:	0	0	1	0
B-Tumor, hair follicle, benign	0%	0%	3%	0%
M-Carcinoma, sebaceous cell	0	1	0	0
	0%	3%	0%	0%
M-Sarcoma, undifferentiated	0	1	2	0
	0%	3%	6%	0%
N-Sarcoma, histiocytic	0	2	0	0
	0%	5%	0%	0%
Brain	50	34	31	50
M-Astrocytoma, malignant	0	1	0	1
	0%	3%	0%	2%
Eyes/optic nerve	50	34	33	50
M-Leukemia, mononuclear	1	1	0	0
	2%	3%	0%	0%
Bone, femur	50	50	50	50
Spinal cord	50	34	30	50
Nose/Turbinates 1	50	50	50	50
Hyperplasia - respiratory epithelium	3	0	3	4
	6%	0%	6%	8%
M-Leukemia, mononuclear	1	0	0	0
	2%	0%	0%	0%
Nose/Turbinates 2	50	50	50	50
Hyperplasia - respiratory epithelium	0	2	2	3
	0%	4%	4%	6%
M-Carcinoma, squamous cell	1	0	0	0
	2%	0%	0%	0%
M-Leukemia, mononuclear	1	0	0	0
	2%	0%	0%	0%

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Tissues With Diagnosis	50	50	50	50
Nose/Turbinate 3	0	1	0	1
M-Carcinoma, squamous cell	0%	2%	0%	2%
M-Leukemia, mononuclear	1	0	0	0
	2%	0%	0%	0%
Nose/Turbinate 4	50	50	50	50
N-Carcinoma, squamous cell	0	2	0	2
	0%	4%	0%	4%
M-Leukemia, mononuclear	1	0	0	0
	2%	0%	0%	0%
Preputial gland	4	1	3	2
Pancreatic LN	5	2	2	4
N-Leukemia, mononuclear	5	2	2	4
	100%	100%	100%	100%
Iliac LN	3	1	4	2
N-Leukemia, mononuclear	3	1	3	2
	100%	100%	75%	100%
Lymph node other	6	4	9	7
N-Leukemia, mononuclear	5	2	7	6
	83%	50%	78%	86%
Mediastinal LN	49	30	30	50
N-Sarcoma, histiocytic	0	1	0	0
	0%	3%	0%	0%
N-Leukemia, mononuclear	9	7	5	8
	18%	23%	17%	16%
Pituitary gland	49	37	34	50
Hyperplasia, pars distalis, focal	5	4	3	8
	10%	11%	9%	16%
B-Adenoma, pars distalis	9	9	6	5
	18%	24%	18%	10%
M-Leukemia, mononuclear	1	1	1	1
	2%	3%	3%	2%

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Animal sex:	2	3	4	
Dosage group:	50	50	50	50
No. in group:	1	2	3	5
Number examined:	0%	0%	1	0
			33%	0%
B-Fibroma				
B-Lipoma	1	0	0	1
	100%	0%	0%	20%
M-Mesothelioma, malignant	0	0	0	2
	0%	0%	0%	40%
N-Sarcoma, histiocytic	0	1	0	0
	0%	50%	0%	0%
Harderian gland	1	0	0	0
N-Carcinoma, squamous cell	1	0	0	0
	100%	0%	0%	0%
Thymus	1	0	0	2
M-Leukemia, mononuclear	1	0	0	1
	100%	0%	0%	50%
Mediastinum	1	0	0	0
N-Leukemia, mononuclear	1	0	0	0
	100%	0%	0%	0%
Tail	1	2	1	0
Hyperplasia/hyperkeratosis	0	2	1	0
	0%	100%	100%	0%
Popliteal LN	2	0	2	2
N-Leukemia, mononuclear	2	0	2	2
	100%	0%	100%	100%
Bone, other	0	1	0	1
M-Sarcoma, NOS	0	0	0	1
	0%	0%	0%	100%
Zymbal's gland	0	0	0	1
M-Carcinoma, squamous cell	0	0	0	1
	0%	0%	0%	100%

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Incidence Summary (with percentages) of Microscopic Observations  
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Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnoses	CtIs	Males	CtIs	Males
Mesentery	.....	0	1	1	0
M-Mesothelioma, malignant	.....	0	0	1	0
		0%	0%	100%	0%

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Non-neoplastic Lesions

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Animal sex:	2	3	4	
Dosage group:	50	50	50	50
No. in group:	7	10	10	11
Number examined:	14%	20%	20%	22%
Alveolar histiocytosis	0	0	0	1
Autolysis, marked	0%	0%	0%	2%
Congestion	0	2	0	0
	0%	4%	0%	0%
Fibrosis, focal	1	0	0	1
	2%	0%	0%	2%
Hemorrhage	3	7	7	1
	6%	14%	14%	2%
Metaplasia, squamous - alveolar epithelium	0	2	0	0
	0%	4%	0%	0%
Mineralization, uremic	0	0	0	1
	0%	0%	0%	2%
Cyst, squamous cell, keratinizing	0	0	0	1
	0%	0%	0%	2%
Inflammation, acute	1	0	1	1
	2%	0%	2%	2%
Inflammation, mixed	1	1	5	2
	2%	2%	10%	4%
Inflammation, granulomatous	0	2	2	1
	0%	4%	4%	2%
Trachea	50	49	50	50
Metaplasia, squamous	1	0	0	0
	2%	0%	0%	0%
Inflammation, acute	0	1	0	0
	0%	2%	0%	0%
Inflammation, mixed	1	1	0	4
	2%	2%	0%	8%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

	-- Animals		Affected --	
	Male	Female	Male	Female
Controls from group(s): 1				
Animal sex:				
Dosage group:				
No. in group:	50	50	50	50
Number examined:	50	49	50	50
Trachea	1	2	1	1
Inflammation, chronic	2%	4%	2%	2%
Bronchial (TBLN)	49	33	28	47
Hemorrhage	0	3	0	2
	0%	9%	0%	4%
Thyroid glands	50	35	31	50
Cyst, follicular	1	1	3	3
	2%	3%	10%	6%
Parathyroid	45	33	30	46
Aorta	50	34	30	50
Dilatation	0	0	0	1
	0%	0%	0%	2%
Esophagus	50	33	30	50
Larynx	50	49	50	50
Ulceration	1	0	0	0
	2%	0%	0%	0%
Inflammation, mixed	40	35	41	44
	80%	71%	82%	88%
Inflammation, chronic	4	2	4	3
	8%	4%	8%	6%
Metaplasia, squamous	8	3	6	6
	16%	6%	12%	12%
Salivary gland	50	34	30	50
Degeneration	0	0	0	1
	0%	0%	0%	2%
Inflammation, acute	0	0	0	1
	0%	0%	0%	2%
Mandibular LN	40	32	30	48
Hemorrhage	1	0	0	0
	3%	0%	0%	0%
Sinus plasmacytosis	1	0	0	0
	3%	0%	0%	0%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnoses	Animal sex: --	Male	Female	3
		CtIs	2	50	50
			40	38	50
			15	8	18
			30%	21%	36%
Liver	Angiectasis		4	8	18
			10%	21%	36%
	Congestion		0	0	1
			0%	0%	2%
	Cyst		0	1	0
			0%	3%	0%
	Fatty Change		2	1	0
			4%	3%	0%
	Foci of cellular alteration, basophilic		1	0	0
			2%	0%	0%
	Hepatodiaphragmatic nodule		1	1	2
			2%	3%	4%
	Necrosis		3	2	4
			6%	5%	8%
	Thrombus		0	0	1
			0%	0%	2%
	Vacuolization, cytoplasmic		1	1	3
			2%	3%	6%
	Inflammation, chronic		7	0	6
			14%	0%	12%
	Spleen		50	38	50
	Congestion		0	1	0
			0%	3%	0%
	Fibrosis		3	5	0
			6%	13%	0%
	Hemorrhage		0	0	0
			0%	0%	0%
	Necrosis		2	1	1
			4%	3%	2%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

	-- Animals		Affected --	
	Male	Female	Male	Female
Controls from group(s): 1				
Animal sex:				
Dosage group:				
No. in group:	50	50	50	50
Number examined:	50	50	50	50
Tissues With Diagnoses				
Kidneys	0	1	2	0
Cyst	0%	2%	4%	0%
Degeneration, hyaline droplet	0	1	0	0
Infarct	0%	2%	0%	0%
Nephropathy, chronic	44	47	50	46
Pigment accumulation, tubular epithelium	88%	94%	100%	92%
Inflammation, acute	3	3	1	3
Heart	6%	6%	2%	6%
Degeneration, myocyte	0	1	2	0
Fibrosis	0%	2%	4%	0%
Thrombus	50	34	30	50
Inflammation, acute	2	1	3	3
Inflammation, focal, chronic	4%	3%	10%	6%
Stomach	5	5	2	4
Inflammation, mixed	10%	15%	7%	8%
Cecum	0	1	2	2
All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03	0%	3%	7%	4%
Stomach	0	0	1	0
Inflammation, mixed	0%	0%	3%	0%
Cecum	19	9	10	19
All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03	38%	26%	33%	38%
Stomach	50	34	30	49
Inflammation, mixed	2	1	0	0
Cecum	4%	3%	0%	0%
All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03	50	34	30	48

Controls from group(s): 1		-- Animals		Affected --	
	With Diseases	Animal sex: --	Males	3	4
		Dosage group: CtIs	2	50	50
		No. in group:	50	29	50
		Number examined:	33	0	1
			0%	0%	2%
Urinary bladder			0	0	1
Hemorrhage			0%	0%	2%
Inflammation, mixed			0	0	1
			0%	0%	2%
Inflammation, chronic			3	0	3
			6%	0%	6%
Duodenum			50	34	30
					49
Jejunum			50	34	30
					48
Ileum			50	34	30
					49
Colon			50	34	30
					49
Inflammation, mixed			1	0	0
			2%	0%	0%
Pancreas			50	34	30
					49
Rectum			50	34	30
					50
Adrenal glands			49	35	30
					50
Cyst			0	0	1
			0%	0%	2%
Degeneration, cytoplasmic vacuolization			5	2	4
			10%	6%	8%
Necrosis			0	0	1
			0%	0%	2%
Thrombus			2	2	3
			4%	6%	10%
Prostate			50	33	29
					50
Atrophy			3	0	0
			6%	0%	0%
Hemorrhage			0	0	1
			0%	0%	2%
Mineralization			1	0	0
			2%	0%	0%

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Prostate	50	33	29	50
Inflammation, acute	2	1	0	0
	4%	3%	0%	0%
Inflammation, mixed	15	12	16	13
	30%	36%	55%	26%
Epididymis	50	36	31	50
Atrophy	4	5	1	7
	8%	14%	3%	14%
Granuloma, sperm	0	1	0	0
	0%	3%	0%	0%
Inflammation, chronic	2	0	1	0
	4%	0%	3%	0%
Seminal vesicle	50	35	37	50
Atrophy	15	2	8	18
	30%	6%	22%	36%
Dilatation	0	1	1	1
	0%	3%	3%	2%
Mesenteric LN	50	34	30	50
Hemorrhage	1	0	0	0
	2%	0%	0%	0%
Histiocytosis, sinus	1	0	0	0
	2%	0%	0%	0%
Testes	50	50	50	50
Atrophy	1	4	3	5
	2%	8%	6%	10%
Hemorrhage	0	1	0	1
	0%	2%	0%	2%
Sciatic nerve	50	34	30	50
Muscle, skeletal	50	34	30	50
Inflammation, chronic	0	0	1	0
	0%	0%	3%	0%

ALL Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03



Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnoses	Male	Female	Male	Female
		CtIs			
Brain	.....	50	34	31	50
Necrosis	.....	0	0	0	1
		0%	0%	0%	2%
Inflammation, acute	.....	0	0	2	0
		0%	0%	6%	0%
Inflammation, chronic	.....	1	0	0	0
		2%	0%	0%	0%
Eyes/optic nerve	.....	50	34	33	50
Atrophy	.....	1	0	0	0
		2%	0%	0%	0%
Atrophy, retinal, unilateral	.....	1	0	3	1
		2%	0%	9%	2%
Cataract	.....	1	0	3	1
		2%	0%	9%	2%
Degeneration	.....	1	0	0	0
		2%	0%	0%	0%
Metaplasia, osseous, scleral	.....	3	0	0	0
		6%	0%	0%	0%
Mineralization, corneal stromal	.....	3	0	2	1
		6%	0%	6%	2%
Mineralization, scleral	.....	3	1	6	4
		6%	3%	18%	8%
Neovascularization, corneal	.....	3	0	2	0
		6%	0%	6%	0%
Inflammation, acute	.....	0	0	1	1
		0%	0%	3%	2%
Inflammation, mixed	.....	1	2	0	0
		2%	6%	0%	0%
Inflammation, chronic	.....	0	0	1	0
		0%	0%	3%	0%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Tissue With Diagnosis	CtIs	2	3	4
Bone, femur	50	50	50	50
New bone formation, endosteal	1 2%	1 2%	0 0%	1 2%
Inflammation, acute	0 0%	0 0%	0 0%	1 2%
Spinal cord	50	34	30	50
Degeneration, white matter	1 2%	0 0%	0 0%	0 0%
Hemorrhage	1 2%	0 0%	1 3%	0 0%
Inflammation, acute	0 0%	0 0%	1 3%	0 0%
Nose/Turbinate 1	50	50	50	50
Degeneration - respiratory epithelium	1 2%	0 0%	0 0%	0 0%
Degeneration, hyaline - respiratory epithelium	0 0%	3 6%	5 10%	3 6%
Metaplasia, squamous - respiratory epithelium	3 6%	2 4%	1 2%	0 0%
Metaplasia, squamous - transitional epithelium	1 2%	0 0%	0 0%	0 0%
Inflammation, mixed	7 14%	5 10%	8 16%	6 12%
Inflammation - nasolacrimal duct	11 22%	11 22%	15 30%	12 24%
Inflammation - respiratory epithelium	1 2%	0 0%	0 0%	1 2%
Nose/Turbinate 2	50	50	50	50
Degeneration - olfactory epithelium	1 2%	0 0%	0 0%	0 0%
Degeneration, hyaline - olfactory epithelium	0 0%	5 10%	7 14%	6 12%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Animals		Affected --	
T i s u e s	W i t h	D i a g n o s e s	C t l s	M a l e s	
			50	50	50
Nose/Turbinate 2	.....	.....	50	50	50
Degeneration - respiratory epithelium			0%	0%	0%
Degeneration, hyaline - respiratory epithelium			0%	1%	0%
Metaplasia, secretory - olfactory epithelium			0%	2%	0%
Metaplasia, squamous - olfactory epithelium			0%	0%	0%
Metaplasia, squamous - respiratory epithelium			0%	1%	0%
Inflammation, mixed			4%	6%	5%
Nose/Turbinate 3	.....	.....	50	50	50
Degeneration, hyaline - olfactory epithelium			2%	1%	7%
Inflammation, mixed			4%	2%	14%
Nose/Turbinate 4	.....	.....	50	50	50
Degeneration - olfactory epithelium			0%	0%	0%
Degeneration, hyaline - olfactory epithelium			0%	0%	1%
Inflammation, mixed			2%	2%	2%
Preputial gland	.....	.....	4	1	3
Cyst, epithelial inclusion			0%	0%	33%
Ectasia			2%	1%	2%
Inflammation, chronic			1%	0%	1%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Animal sex:	2	3	4	50
Dosage group:	50	50	50	50
No. in group:	4	1	3	2
Number examined:	75%	0%	0%	50%
Preputial gland	5	2	2	4
Inflammation, mixed	3	1	4	2
Pancreatic LN	0%	0%	25%	0%
Iliac LN	6	4	9	7
Dilatation, sinusoidal	0	1	0	0
Lymph node other	0%	25%	11%	0%
Dilatation, sinusoidal	0	1	0	0
Infiltration, histiocytic	0	1	1	0
Sinus plasmacytosis	1	0	0	1
Mediastinal LN	17%	0%	0%	14%
Hemorrhage	49	30	30	50
Pigmentation	2	1	2	2
Pituitary gland	4%	3%	7%	4%
Angiectasis	0	1	0	0
Cyst	0%	3%	0%	0%
Inflammation, chronic	49	37	34	50
Tiss. not specifi	2	0	0	3
Cyst	4%	0%	0%	6%
Mammary tissue	4	7	7	6
Hemorrhage	8%	19%	21%	12%
Inflammation, chronic	3	0	0	2
Tiss. not specifi	6%	0%	0%	4%
Cyst	0	0	0	1
Mammary tissue	0%	0%	0%	2%
Inflammation, chronic	1	2	3	5
Tiss. not specifi	0	0	0	1
Cyst	0%	0%	0%	20%
Mammary tissue	0	0	1	0
	0%	0%	33%	0%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Ani m a l s		A f f e c t e d --	
T i s s u e s	W i t h D i a g n o s e s	C t l s	-- M a l e s --		
Tiss.not specifi	.....Number examined:	1	2	3	5
Myodegeneration		0	1	0	0
		0%	50%	0%	0%
Inflammation, mixed		0	0	1	0
		0%	0%	33%	0%
Splenic tissue, "accessory"		0	0	0	1
		0%	0%	0%	20%
Harderian gland	.....Number examined:	1	0	0	0
Thymus	.....Number examined:	1	0	0	2
Hemorrhage		0	0	0	1
		0%	0%	0%	50%
Mediastinum	.....Number examined:	1	0	0	0
Tail	.....Number examined:	1	2	1	0
Cyst, epithelial inclusion		0	1	0	0
		0%	50%	0%	0%
Inflammation, acute		1	0	0	0
		100%	0%	0%	0%
Inflammation, mixed		0	2	1	0
		0%	100%	100%	0%
Popliteal LN	.....Number examined:	2	0	2	2
Bone, other	.....Number examined:	0	1	0	1
Hyperostosis		0	1	0	0
		0%	100%	0%	0%
Zymbal's gland	.....Number examined:	0	0	0	1
Mesentery	.....Number examined:	0	1	1	0
Inflammation, mixed		0	1	0	0
		0%	100%	0%	0%

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

M-4 Tabulated Incidence Summary of Non-neoplastic Lesions

Lovelace Respiratory Research Institute  
 Tabulated Incidence Summary of Nonneoplastic Lesions  
 Study Number: FY01013M  
 Printed: 14-Jun-04  
 Page: 1

Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnoses	Ctls	Males	3	4
Number examined:		50	50	50	50
Lungs	.....	50	50	50	50
Hyperplasia, alveolar epithelial, focal, Minimal.		6	4	1	2
Hyperplasia, alveolar epithelial, focal, Mild.		2	3	1	2
Congestion, Mild.		0	1	0	0
Congestion, Moderate.		0	1	0	0
Alveolar histiocytosis, Minimal.		7	10	10	11
Hyperplasia, alveolar epithelial, widespread, Mild.		1	1	0	0
Fibrosis, focal, Mild.		1	0	0	1
Inflammation, mixed, Minimal.		0	0	3	2
Inflammation, mixed, Mild.		0	1	2	0
Inflammation, mixed, Moderate.		1	0	0	0
Hemorrhage, Minimal.		3	4	5	1
Hemorrhage, Mild.		0	2	2	0
Hemorrhage, Moderate.		0	1	0	0
Inflammation, acute, Minimal.		0	0	1	0
Inflammation, acute, Moderate.		0	0	0	1
Inflammation, acute, Marked.		1	0	0	0
Inflammation, granulomatous, Minimal.		0	2	2	0
Inflammation, granulomatous, Moderate.		0	0	0	1
Mineralization, uremic, Moderate.		0	0	0	1
Cyst, squamous cell, keratinizing, Present.		0	0	0	1
Autolysis, marked, Present.		0	0	0	1
Metaplasia, squamous - alveolar epithelium, Minimal.		0	1	0	0
Metaplasia, squamous - alveolar epithelium, Moderate.		0	1	0	0
Trachea	.....	50	49	50	50
Inflammation, acute, Minimal.		0	1	0	0
Inflammation, mixed, Minimal.		0	0	0	1
Inflammation, mixed, Mild.		1	1	0	3
Hyperplasia, epithelial, Mild.		1	0	0	0
Hyperplasia, epithelial, Moderate.		0	1	0	0
Inflammation, chronic, Minimal.		1	1	0	1
Inflammation, chronic, Mild.		0	1	1	0
Metaplasia, squamous, Moderate.		1	0	0	0
Bronchial (TBLN)	.....	49	33	28	47
Hemorrhage, Minimal.		0	0	0	1
Hemorrhage, Mild.		0	3	0	1

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Tabulated Incidence Summary of Nonneoplastic Lesions  
 Study Number:FY01013M  
 Printed:14-Jun-04  
 Page: 2

Controls from group(s): 1	Animal sex:	Affected	
Diagnoses	Dosage group:	Males	Females
With	No. in group:	50	50
Diagnoses	Number examined:	35	31
Thyroid glands	1	1	0
Hyperplasia, C-cell, focal, Minimal.	2	1	0
Hyperplasia, C-cell, focal, Mild.	1	0	0
Hyperplasia, C-cell, focal, Moderate.	1	0	0
Cyst, follicular, Present.	1	1	3
Hyperplasia, follicular cell, Moderate.	0	0	1
Parathyroid	45	33	30
Hyperplasia, focal, Minimal.	0	0	0
Hyperplasia, focal, Moderate.	0	0	0
Hyperplasia, diffuse, Moderate.	0	0	0
Aorta	50	34	30
Dilatation, Present.	0	0	0
Esophagus	50	33	30
Larynx	50	49	50
Hyperplasia, epithelial, Minimal.	15	5	8
Hyperplasia, epithelial, Mild.	9	10	7
Metaplasia, squamous, Minimal.	4	1	6
Metaplasia, squamous, Mild.	3	2	0
Metaplasia, squamous, Moderate.	1	0	0
Inflammation, mixed, Minimal.	14	10	11
Inflammation, mixed, Mild.	25	23	30
Inflammation, mixed, Moderate.	1	2	0
Inflammation, chronic, Minimal.	3	2	2
Inflammation, chronic, Mild.	1	0	2
Ulceration, Mild.	1	0	0
Salivary gland	50	34	30
Degeneration, Minimal.	0	0	0
Inflammation, acute, Minimal.	0	0	0
Mandibular LN	40	32	30
Hyperplasia, lymphoid, Mild.	1	0	1
Sinus plasmacytosis, Moderate.	1	0	0
Hemorrhage, Mild.	1	0	0

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Tabulated Incidence Summary of Nonneoplastic Lesions  
 Study Number: FY01013M  
 Printed: 14-Jun-04  
 Page: 3

Diagnoses	Controls from group(s): 1		Animals		Affected	
	Tissues	With Diagnoses	--- Males	--- Males	---	---
			CtIs	3	4	
			50	50	50	50
		Number examined:	50	40	38	50
Necrosis, Minimal.			2	3	2	1
Necrosis, Mild.			1	1	0	3
Vacuolization, cytoplasmic, Minimal.			1	1	0	2
Vacuolization, cytoplasmic, Mild.			0	1	1	1
Vacuolization, cytoplasmic, Moderate.			0	1	0	0
Angiectasis, Minimal.			9	3	6	12
Angiectasis, Mild.			6	0	2	6
Angiectasis, Marked.			0	1	0	0
Hyperplasia, biliary, Minimal.			6	1	1	3
Hyperplasia, biliary, Mild.			23	19	16	25
Hyperplasia, biliary, Moderate.			14	13	19	16
Hyperplasia, biliary, Marked.			2	1	1	2
Hyperplasia, hepatocellular, regenerative, Minimal.			0	0	1	1
Hyperplasia, hepatocellular, regenerative, Mild.			1	3	2	1
Inflammation, chronic, Minimal.			7	1	0	5
Inflammation, chronic, Mild.			0	0	0	1
Fatty Change, Minimal.			0	1	1	0
Fatty Change, Mild.			1	0	0	0
Fatty Change, Moderate.			1	0	0	0
Hepatodiaphragmatic nodule, Present.			1	1	1	2
Foci of cellular alteration, basophilic, Minimal.			1	0	0	0
Foci of cellular alteration, basophilic, Mild.			0	1	0	0
Congestion, Moderate.			0	0	0	1
Thrombus, Mild.			0	0	0	1
Cyst, Moderate.			0	0	1	0
Spleen		Number examined:	50	39	38	50
Fibrosis, Minimal.			0	0	1	0
Fibrosis, Mild.			2	1	4	0
Fibrosis, Moderate.			1	0	0	0
Fibrosis, Marked.			0	1	0	0
Necrosis, Mild.			0	1	1	0
Necrosis, Moderate.			0	1	0	1
Necrosis, Marked.			2	0	0	0
Hemorrhage, Moderate.			0	1	0	0
Congestion, Mild.			0	0	1	0
Congestion, Moderate.			0	0	1	0

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	Animal sex:	Affected
Tissues	Diagnoses	Number examined
Wit h	D i a g n o s e s	Number examined
--- Ani m a l s	--- M a l e s	---
CtIs	2	3
50	50	50
Kidneys	.....	50
Nephropathy, chronic, Minimal.		7
Nephropathy, chronic, Mild.		23
Nephropathy, chronic, Moderate.		13
Nephropathy, chronic, Marked.		1
Pigment accumulation, tubular epithelium, Moderate.		2
Pigment accumulation, tubular epithelium, Marked.		1
Cyst, Minimal.		0
Cyst, Mild.		0
Degeneration, hyaline droplet, Marked.		0
Infarct, Mild.		0
Inflamation, acute, Minimal.		0
Inflamation, acute, Moderate.		0
Heart	.....	50
Inflamation, focal, chronic, Minimal.		17
Inflamation, focal, chronic, Mild.		2
Degeneration, myocyte, Minimal.		2
Degeneration, myocyte, Mild.		0
Fibrosis, Minimal.		2
Fibrosis, Mild.		3
Fibrosis, Moderate.		0
Thrombus, Minimal.		0
Thrombus, Mild.		0
Thrombus, Moderate.		0
Inflamation, acute, Moderate.		0
Stomach	.....	50
Hyperplasia, squamous epithelial, Marked.		2
Inflamation, mixed, Mild.		1
Inflamation, mixed, Moderate.		1
Cecum	.....	50
Urinary bladder	.....	50
Inflamation, chronic, Minimal.		3
Hemorrhage, Marked.		0
Inflamation, mixed, Marked.		0
Duodenum	.....	50
Jejunum	.....	50

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Tissues with diagnoses	50	50	50	50
Ileum	50	34	30	49
Hyperplasia, lymphoid, Mild.	1	0	0	0
Hyperplasia, lymphoid, Moderate.	1	0	0	0
Colon	50	34	30	49
Inflammation, mixed, Marked.	1	0	0	0
Pancreas	50	34	30	49
Rectum	50	34	30	50
Adrenal glands	49	35	30	50
Hyperplasia, medullary, focal, Present.	8	2	5	17
Degeneration, cytoplasmic vacuolization, Minimal.	4	1	1	4
Degeneration, cytoplasmic vacuolization, Mild.	1	0	1	0
Degeneration, cytoplasmic vacuolization, Moderate.	0	1	0	0
Thrombus, Minimal.	1	0	0	3
Thrombus, Mild.	1	1	1	1
Thrombus, Moderate.	0	1	2	0
Thrombus, Marked.	0	0	0	1
Cyst, Moderate.	0	0	0	1
Necrosis, Mild.	0	0	1	0
Necrosis, Moderate.	0	0	0	1
Hyperplasia, cortical, diffuse, Moderate.	0	0	1	0
Prostate	50	33	29	50
Inflammation, mixed, Minimal.	5	1	4	3
Inflammation, mixed, Mild.	8	6	8	4
Inflammation, mixed, Moderate.	2	4	4	4
Inflammation, mixed, Marked.	0	1	0	2
Inflammation, acute, Minimal.	2	0	0	0
Inflammation, acute, Moderate.	0	1	0	0
Mineralization, Minimal.	1	0	0	0
Atrophy, Minimal.	0	0	0	4
Atrophy, Mild.	3	0	0	0
Atrophy, Moderate.	0	0	0	0
Hemorrhage, Mild.	0	0	0	1
Hyperplasia, Minimal.	0	0	0	1

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	Animal sex:				
T i s s u e s	W i t h	D i a g n o s e s	C t l s	M a l e s	A f f e c t e d
Epithelium			50	50	50
Inflammation, chronic, Mild.			2	0	0
Inflammation, chronic, Moderate.			0	0	0
Atrophy, Minimal.			0	1	0
Atrophy, Mild.			2	3	1
Atrophy, Moderate.			2	1	0
Granuloma, sperm, Mild.			0	1	0
Seminal vesicle			50	35	37
Atrophy, Minimal.			1	0	0
Atrophy, Mild.			10	1	5
Atrophy, Moderate.			4	1	3
Dilatation, Mild.			0	1	0
Dilatation, Moderate.			0	0	0
Dilatation, Marked.			0	0	1
Hyperplasia, Moderate.			0	1	0
Mesenteric LN			50	34	30
Histiocytosis, sinus, Moderate.			1	0	0
Hemorrhage, Mild.			1	0	0
Testes			50	50	50
Hyperplasia, interstitial cell, Present.			5	6	3
Atrophy, Mild.			0	0	2
Atrophy, Moderate.			0	1	1
Atrophy, Marked.			1	3	0
Hemorrhage, Moderate.			0	1	0
Sciatic nerve			50	34	30
Muscle, skeletal			50	34	30
Inflammation, chronic, Mild.			0	0	1
Mammary gland			36	31	29
Hyperplasia, lobular, Minimal.			0	0	0
Hyperplasia, lobular, Mild.			0	1	0
Hyperplasia, lobular, Moderate.			0	0	0
Hyperplasia, lobular, Marked.			0	0	0
Ectasia, Moderate.			1	0	0
Ectasia, Marked.			0	0	0
Cyst, Present.			0	0	1

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Diagnoses	-- Animals		Affected	
	Male	Female	Male	Female
Controls from group(s): 1				
Animal sex:				
Dosage group:				
No. in group:	50	50	50	50
Number examined:	49	37	35	50
Skin				
Fibrosis, Mild.	1	0	0	0
Fibrosis, Moderate.	0	2	0	0
Inflammation, chronic, Minimal.	1	0	0	0
Hyperkeratosis, Moderate.	0	1	1	0
Hyperkeratosis, Marked.	1	0	1	0
Cyst, epithelial inclusion, Present.	0	0	0	1
Inflammation, mixed, Moderate.	0	2	1	0
Inflammation, mixed, Marked.	0	1	1	0
Necrosis, Marked.	0	1	0	0
Brain				
Compression, Minimal.	50	34	31	50
Compression, Mild.	0	0	1	0
Compression, Moderate.	1	2	0	2
Compression, Marked.	5	0	0	2
Necrosis, Mild.	0	0	1	0
Ectasia, ventricular system, Mild.	0	0	0	1
Ectasia, ventricular system, Moderate.	1	0	0	0
Hemorrhage, Mild.	1	0	1	0
Hemorrhage, Moderate.	0	0	1	0
Gliosis, Marked.	1	0	0	0
Inflammation, chronic, Marked.	1	0	0	0
Mineralization, Minimal.	0	0	0	0
Edema, Moderate.	0	0	0	1
Inflammation, acute, Minimal.	0	0	0	1
Inflammation, acute, Mild.	0	0	1	0
Eyes/optic nerve				
Mineralization, corneal stromal, Minimal.	50	34	33	50
Mineralization, corneal stromal, Mild.	2	0	2	1
Mineralization, scleral, Minimal.	1	0	0	0
Mineralization, scleral, Mild.	3	1	5	4
Atrophy, Marked.	0	0	1	0
Degeneration, Marked.	1	0	0	0
Atrophy, retinal, unilateral, Moderate.	1	0	0	0
Atrophy, retinal, unilateral, Marked.	0	0	1	1
Cataract, Present.	1	0	3	1
Neovascularization, corneal, Minimal.	2	0	0	0
Neovascularization, corneal, Mild.	1	0	1	0
Neovascularization, corneal, Moderate.	0	0	1	0
Inflammation, mixed, Minimal.	1	0	0	0
Inflammation, mixed, Moderate.	0	1	0	0
Inflammation, mixed, Marked.	0	1	0	0

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Diagnoses	-- Animals		Affected	
	Male	Female	Male	Female
Controls from group(s): 1				
Animal sex:				
Dosage group:				
No. in group:	50	50	50	50
Number examined:	50	34	33	50
Eyes/optic nerve				
Metaplasia, osseous, scleral, Minimal.	3	0	0	0
Inflammation, acute, Minimal.	0	0	1	0
Inflammation, acute, Mild.	0	0	0	1
Inflammation, chronic, Moderate.	0	0	1	0
Bone, femur				
New bone formation, endosteal, Minimal.	50	50	50	50
New bone formation, endosteal, Mild.	1	0	0	0
New bone formation, endosteal, Marked.	0	0	0	1
New bone formation, endosteal, Marked.	0	1	0	0
Inflammation, acute, Mild.	0	0	0	1
Spinal cord				
Degeneration, white matter, Minimal.	50	34	30	50
Hemorrhage, Mild.	1	0	0	0
Inflammation, acute, Minimal.	1	0	1	0
Inflammation, acute, Minimal.	0	0	1	0
Nose/Turbinates				
Inflammation - nasolacrimal duct, Minimal.	50	50	50	50
Inflammation - nasolacrimal duct, Mild.	0	0	4	0
Inflammation - nasolacrimal duct, Moderate.	6	5	5	4
Inflammation - nasolacrimal duct, Marked.	5	6	6	6
Inflammation, mixed, Minimal.	0	0	0	2
Inflammation, mixed, Mild.	1	2	6	2
Inflammation, mixed, Moderate.	3	1	1	2
Inflammation, mixed, Marked.	2	1	1	2
Metaplasia, squamous - respiratory epithelium, Minimal.	1	1	0	0
Metaplasia, squamous - respiratory epithelium, Mild.	1	1	1	0
Metaplasia, squamous - respiratory epithelium, Moderate.	1	1	0	0
Inflammation - respiratory epithelium, Minimal.	1	0	0	0
Inflammation - respiratory epithelium, Mild.	1	0	0	1
Metaplasia, squamous - transitional epithelium, Minimal.	1	0	0	0
Hyperplasia - respiratory epithelium, Minimal.	0	0	2	0
Hyperplasia - respiratory epithelium, Mild.	1	0	0	1
Hyperplasia - respiratory epithelium, Moderate.	2	0	1	3
Degeneration, hyaline - respiratory epithelium, Minimal.	0	2	2	1
Degeneration, hyaline - respiratory epithelium, Mild.	0	0	3	2
Degeneration, hyaline - respiratory epithelium, Moderate.	0	1	0	0
Degeneration - respiratory epithelium, Minimal.	1	0	0	0

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.



Controls from group(s): 1	-- Ani m a l s		A f f e c t e d --	
	CtIs	M a l e s	CtIs	M a l e s
T i s s u e s W i t h D i a g n o s e s	50	25	50	25
Preputial gland	4	1	3	2
Inflammation, chronic, Mild.	1	0	0	0
Cyst, epithelial inclusion, Present.	0	0	1	0
Pancreatic LN	5	2	2	4
Iliac LN	3	1	4	2
Dilatation, sinusoidal, Mild.	0	0	1	0
Lymph node other	6	4	9	7
Sinus plasmacytosis, Marked.	1	0	0	1
Infiltration, histiocytic, Moderate.	0	0	1	0
Infiltration, histiocytic, Marked.	0	1	0	0
Dilatation, sinusoidal, Marked.	0	1	0	0
Mediastinal LN	49	30	30	50
Hemorrhage, Minimal.	1	0	0	0
Hemorrhage, Mild.	1	1	2	2
Pigmentation, Marked.	0	1	0	0
Pituitary gland	49	37	34	50
Cyst, Minimal.	1	5	4	3
Cyst, Mild.	2	2	3	2
Cyst, Moderate.	1	0	0	0
Cyst, Marked.	0	0	0	1
Hyperplasia, pars distalis, focal, Minimal.	3	3	3	5
Hyperplasia, pars distalis, focal, Mild.	2	1	0	0
Hyperplasia, pars distalis, focal, Moderate.	0	0	0	3
Hemorrhage, Minimal.	1	0	0	0
Hemorrhage, Mild.	2	0	0	0
Hemorrhage, Moderate.	0	0	0	1
Hemorrhage, Marked.	0	0	0	1
Angiectasis, Minimal.	2	0	0	1
Angiectasis, Mild.	0	0	0	1
Angiectasis, Moderate.	0	0	0	1
Inflammation, chronic, Minimal.	0	0	0	1
Tiss.not specifi	1	2	3	5
Cyst, Moderate.	0	0	0	1
Mammary tissue, Present.	0	0	1	0
Inflammation, mixed, Marked.	0	0	1	0
Myodegeneration, Mild.	0	1	0	0
Splenic tissue, "accessory", Present.	0	0	0	1
Harderian gland	1	0	0	0

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Thymus	50	50	3	4
Hemorrhage, Mild.	1	0	0	2
Mediastinum	1	0	0	0
Tail	1	2	1	0
Inflammation, acute, Marked.	1	0	0	0
Inflammation, mixed, Moderate.	0	2	0	0
Inflammation, mixed, Marked.	0	0	1	0
Hyperplasia/hyperkeratosis, Moderate.	0	1	1	0
Hyperplasia/hyperkeratosis, Marked.	0	1	0	0
Cyst, epithelial inclusion, Present.	0	1	0	0
Popliteal LN	2	0	2	2
Bone, other	0	1	0	1
Hyperostosis, Mild.	0	1	0	0
Zymbal's gland	0	0	0	1
Mesentery	0	1	1	0
Inflammation, mixed, Marked.	0	1	0	0

Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

M-5 Lesion Incidence Summary with Average Severity Grades

Controls from group(s): 1		Animal sex:		Affected	
Tissues	With Diagnosis	Male	Female	Count	Percentage
Lungs		50	50	50	50
Alveolar histiocytosis		7	10	10	11
		0.1	0.2	0.2	0.2
Autolysis, marked		0	0	0	1
		0.0	0.0	0.0	0.0
Congestion		0	2	0	0
		0.0	0.1	0.0	0.0
Fibrosis, focal		1	0	0	1
		0.0	0.0	0.0	0.0
Hemorrhage		3	7	7	1
		0.1	0.2	0.2	0.0
Metaplasia, squamous - alveolar epithelium		0	2	0	0
		0.0	0.1	0.0	0.0
Mineralization, uremic		0	0	0	1
		0.0	0.0	0.0	0.1
Cyst, squamous cell, keratinizing		0	0	0	1
		0.0	0.0	0.0	0.0
Inflammation, acute		1	0	1	1
		0.1	0.0	0.0	0.1
Inflammation, mixed		1	1	5	2
		0.1	0.0	0.1	0.0
Inflammation, granulomatous		0	2	2	1
		0.0	0.0	0.0	0.1
Hyperplasia, alveolar epithelial, focal		8	7	2	4
		0.2	0.2	0.1	0.1
Hyperplasia, alveolar epithelial, widespread		1	1	0	0
		0.0	0.0	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Lesion incidence summary with average severity grades  
 Study Number: FY01013M

Lesion	-- Animals		Affected --	
	Male	Female	Male	Female
Controls from group(s): 1				
Animal sex:				
Dosage group:				
No. in group:	50	50	50	50
Number examined:	50	49	50	50
Average severity:	0.1	0.0	0.0	0.0
Metaplasia, squamous				
Inflammation, acute				
Average severity:	0.0	0.0	0.0	0.0
Inflammation, mixed				
Average severity:	0.0	0.0	0.0	0.0
Inflammation, chronic				
Average severity:	0.0	0.0	0.0	0.0
Hyperplasia, epithelial				
Average severity:	0.0	0.0	0.0	0.0
Bronchial (TBLN) Hemorrhage				
Number examined:	49	33	28	47
Average severity:	0.0	0.2	0.0	0.1
Thyroid glands Cyst, follicular				
Number examined:	50	35	31	50
Average severity:	0.0	0.0	0.1	0.1
Hyperplasia, C-cell, focal				
Average severity:	0.2	0.1	0.0	0.2
Hyperplasia, follicular cell				
Average severity:	0.0	0.0	0.1	0.0
Parathyroid Hyperplasia, diffuse				
Number examined:	45	33	30	46
Average severity:	0.0	0.0	0.0	0.1
Hyperplasia, focal				
Average severity:	0.0	0.0	0.0	0.1
Aorta Dilatation				
Number examined:	50	34	30	50
Average severity:	0.0	0.0	0.0	0.0
Esophagus				
Number examined:	50	33	30	50

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		Animal sex:		Affected	
Tissues	With Diagnoses	Male	Female	Male	Female
		CtIs	CtIs	CtIs	CtIs
Larynx	.....	50	49	50	50
Ulceration		1	0	0	0
	Average severity:	0.0	0.0	0.0	0.0
Inflammation, mixed		40	35	41	44
	Average severity:	1.3	1.3	1.4	1.7
Inflammation, chronic		4	2	4	3
	Average severity:	0.1	0.0	0.1	0.1
Metaplasia, squamous		8	3	6	6
	Average severity:	0.3	0.1	0.1	0.2
Hyperplasia, epithelial		24	15	15	24
	Average severity:	0.7	0.5	0.4	0.8
Salivary gland	.....	50	34	30	50
Degeneration		0	0	0	1
	Average severity:	0.0	0.0	0.0	0.0
Inflammation, acute		0	0	0	1
	Average severity:	0.0	0.0	0.0	0.0
Mandibular LN	.....	40	32	30	48
Hemorrhage		1	0	0	0
	Average severity:	0.1	0.0	0.0	0.0
Sinus plasmacytosis		1	0	0	0
	Average severity:	0.1	0.0	0.0	0.0
Hyperplasia, lymphoid		1	0	1	0
	Average severity:	0.1	0.0	0.1	0.0
Liver	.....	50	40	38	50
Angiectasis		15	4	8	18
	Average severity:	0.4	0.2	0.3	0.5
Congestion		0	0	0	1
	Average severity:	0.0	0.0	0.0	0.1
Cyst		0	0	1	0
	Average severity:	0.0	0.0	0.1	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		Animal sex:		Affected	
Tissues	With Diagnoses	Ctls	Males	3	4
Liver		50	50	50	50
Fatty Change		50	40	38	50
Average severity:		0.1	0.0	0.0	0.0
Foci of cellular alteration, basophilic		1	1	0	0
Average severity:		0.0	0.1	0.0	0.0
Hepatodiaphragmatic nodule		1	1	1	2
Average severity:		0.0	0.0	0.0	0.0
Necrosis		3	4	2	4
Average severity:		0.1	0.1	0.1	0.1
Thrombus		0	0	0	1
Average severity:		0.0	0.0	0.0	0.0
Vacuolization, cytoplasmic		1	3	1	3
Average severity:		0.0	0.2	0.1	0.1
Inflammation, chronic		7	1	0	6
Average severity:		0.1	0.0	0.0	0.1
Hyperplasia, biliary		45	34	37	46
Average severity:		2.0	2.1	2.5	2.2
Hyperplasia, hepatocellular, regenerative		1	3	3	2
Average severity:		0.0	0.2	0.1	0.1
Spleen		50	39	38	50
Congestion		0	1	1	0
Average severity:		0.0	0.1	0.1	0.0
Fibrosis		3	2	5	0
Average severity:		0.1	0.2	0.2	0.0
Hemorrhage		0	1	0	0
Average severity:		0.0	0.1	0.0	0.0
Necrosis		2	2	1	1
Average severity:		0.2	0.1	0.1	0.1

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnoses	Animal sex: --	Males	3	4
		Dosage group: Ctls	2	50	50
		No. in group: 50	50	50	50
		Number examined: 50	50	50	50
Kidneys			0	1	2
Cyst		Average severity:	0.0	0.0	0.1
Degeneration, hyaline droplet		Average severity:	0.0	0.1	0.0
Infarct		Average severity:	0	0	2
Nephropathy, chronic		Average severity:	0.0	0.0	0.1
Pigment accumulation, tubular epithelium		Average severity:	44	47	50
Inflammation, acute		Average severity:	1.9	2.1	2.6
Heart		Average severity:	3	3	1
Degeneration, myocyte		Average severity:	0.2	0.2	0.1
Fibrosis		Average severity:	0	1	2
Thrombus		Average severity:	0.0	0.0	0.1
Inflammation, acute		Average severity:	5	5	2
Inflammation, focal, chronic		Average severity:	0.2	0.2	0.1
Stomach		Average severity:	0	1	2
Inflammation, mixed		Average severity:	0.0	0.1	0.1
Hyperplasia, squamous epithelial		Average severity:	0.0	0.0	0.1
		Average severity:	19	9	10
		Average severity:	0.4	0.3	0.3
		Average severity:	50	34	30
		Average severity:	2	1	0
		Average severity:	0.1	0.1	0.0
		Average severity:	2	0	0
		Average severity:	0.2	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Tissues	With Diagnoses	-- Animals		Affected	
		Male	Female	Male	Female
Controls from group(s): 1					
Animal sex:					
Dosage group:					
No. in group:		50	50	50	50
Number examined:		50	34	30	48
Urinary bladder		50	33	29	50
Hemorrhage		0	0	0	1
Average severity:		0.0	0.0	0.0	0.1
Inflammation, mixed		0	0	0	1
Average severity:		0.0	0.0	0.0	0.1
Inflammation, chronic		3	0	0	3
Average severity:		0.1	0.0	0.0	0.1
Duodenum		50	34	30	49
Jejunum		50	34	30	48
Ileum		50	34	30	49
Hyperplasia, lymphoid		2	0	0	0
Average severity:		0.1	0.0	0.0	0.0
Colon		50	34	30	49
Inflammation, mixed		1	0	0	0
Average severity:		0.1	0.0	0.0	0.0
Pancreas		50	34	30	49
Rectum		50	34	30	50
Adrenal glands		49	35	30	50
Cyst		0	0	0	1
Average severity:		0.0	0.0	0.0	0.1
Degeneration, cytoplasmic vacuolization		5	2	2	4
Average severity:		0.1	0.1	0.1	0.1
Necrosis		0	0	1	1
Average severity:		0.0	0.0	0.1	0.1
Thrombus		2	2	3	5
Average severity:		0.1	0.1	0.3	0.2
Hyperplasia, cortical, diffuse		0	0	1	0
Average severity:		0.0	0.0	0.1	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Lesion incidence summary with average severity grades  
 Study Number: FY01013M

Controls from group(s): 1		Animal sex:		Affected	
Tissues	With Diagnosis	Ctls	Males	3	4
Adrenal glands	.....	50	50	50	50
Hyperplasia, medullary, focal	.....	49	35	30	50
	Number examined:	8	2	5	17
	Average severity:	0.2	0.1	0.2	0.3
Prostate	.....	50	33	29	50
Atrophy	.....	3	0	0	5
	Average severity:	0.1	0.0	0.0	0.1
Hemorrhage	.....	0	0	0	1
	Average severity:	0.0	0.0	0.0	0.0
Mineralization	.....	1	0	0	0
	Average severity:	0.0	0.0	0.0	0.0
Hyperplasia	.....	0	0	1	0
	Average severity:	0.0	0.0	0.0	0.0
Inflammation, acute	.....	2	1	0	0
	Average severity:	0.0	0.1	0.0	0.0
Inflammation, mixed	.....	15	12	16	13
	Average severity:	0.5	0.9	1.1	0.6
Epididymis	.....	50	36	31	50
Atrophy	.....	4	5	1	7
	Average severity:	0.2	0.3	0.1	0.2
Granuloma, sperm	.....	0	1	0	0
	Average severity:	0.0	0.1	0.0	0.0
Inflammation, chronic	.....	2	0	1	0
	Average severity:	0.1	0.0	0.1	0.0
Seminal vesicle	.....	50	35	37	50
Atrophy	.....	15	2	8	18
	Average severity:	0.7	0.1	0.5	0.7
Dilatation	.....	0	1	1	1
	Average severity:	0.0	0.1	0.1	0.1
Hyperplasia	.....	0	1	0	0
	Average severity:	0.0	0.1	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Lesion incidence summary with average severity grades  
Study Number: FY01013M

Lovelace Respiratory  
Research Institute  
Rat/F344/N

		-- Animals		Affected --	
		-- Males		--	
Controls from group(s): 1	Animal sex:	Ctl's		3	
Tissues With Diagnosis	Dosage group:	50		50	
Mesenteric LN	No. in group:	34		30	
Hemorrhage	Number examined:	1		0	
	Average severity:	0.0		0.0	
Histiocytosis, sinus	Average severity:	1		0	
	Average severity:	0.1		0.0	
Testes	Number examined:	50		50	
Atrophy	Average severity:	1		3	
	Average severity:	0.1		0.1	
Hemorrhage	Average severity:	0		1	
	Average severity:	0.0		0.1	
Hyperplasia, interstitial cell	Average severity:	5		3	
	Average severity:	0.1		0.1	
Sciatic nerve	Number examined:	50		30	
Muscle, skeletal	Number examined:	50		30	
Inflammation, chronic	Average severity:	0		1	
	Average severity:	0.0		0.1	
Mammary gland	Number examined:	36		31	
Cyst	Average severity:	0		1	
	Average severity:	0.0		0.0	
Ectasia	Average severity:	1		0	
	Average severity:	0.1		0.0	
Hyperplasia, lobular	Average severity:	0		1	
	Average severity:	0.0		0.0	
Skin	Number examined:	49		37	
Cyst, epithelial inclusion	Average severity:	0		0	
	Average severity:	0.0		0.0	
Fibrosis	Average severity:	1		2	
	Average severity:	0.0		0.0	
Hyperkeratosis	Average severity:	1		1	
	Average severity:	0.1		0.1	

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Controls from group(s): 1		Animal sex:		Affected	
Tissues	With Diagnoses	Male	Female	Male	Female
		Ctls			
Skin		50	50	50	50
Necrosis		49	37	35	50
	Average severity:	0.0	0.1	0.0	0.0
Inflammation, mixed		0	3	2	0
	Average severity:	0.0	0.3	0.2	0.0
Inflammation, chronic		1	0	0	0
	Average severity:	0.0	0.0	0.0	0.0
Brain		50	34	31	50
Compression		6	2	2	4
	Average severity:	0.3	0.1	0.2	0.2
Ectasia, ventricular system		2	0	0	0
	Average severity:	0.1	0.0	0.0	0.0
Edema		0	0	0	1
	Average severity:	0.0	0.0	0.0	0.1
Gliosis		1	0	0	0
	Average severity:	0.1	0.0	0.0	0.0
Hemorrhage		1	0	2	0
	Average severity:	0.0	0.0	0.2	0.0
Mineralization		0	0	0	1
	Average severity:	0.0	0.0	0.0	0.0
Necrosis		0	0	0	1
	Average severity:	0.0	0.0	0.0	0.0
Inflammation, acute		0	0	2	0
	Average severity:	0.0	0.0	0.1	0.0
Inflammation, chronic		1	0	0	0
	Average severity:	0.1	0.0	0.0	0.0
Eyes/optic nerve		50	34	33	50
Atrophy		1	0	0	0
	Average severity:	0.1	0.0	0.0	0.0
Atrophy, retinal, unilateral		1	0	3	1
	Average severity:	0.1	0.0	0.3	0.1

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

	-- Animals		Affected --	
	Male	Female	Male	Female
Controls from group(s): 1				
Animal sex:				
Dosage group:				
No. in group:	50	50	50	50
Number examined:	50	34	33	50
Average severity:	0.0	0.0	0.1	0.0
Degeneration				
Average severity:	0.1	0.0	0.0	0.0
Metaplasia, osseous, scleral				
Average severity:	0.1	0.0	0.0	0.0
Mineralization, corneal stromal				
Average severity:	0.1	0.0	0.1	0.0
Mineralization, scleral				
Average severity:	0.1	0.0	0.2	0.1
Neovascularization, corneal				
Average severity:	0.1	0.0	0.2	0.0
Inflammation, acute				
Average severity:	0.0	0.0	0.1	0.0
Inflammation, mixed				
Average severity:	0.1	0.2	0.0	0.0
Inflammation, chronic				
Average severity:	0.0	0.0	0.1	0.0
Bone, femur				
Number examined:	50	50	50	50
Average severity:	0.0	0.1	0.0	0.0
Inflammation, acute				
Average severity:	0.0	0.0	0.0	0.0
Spinal cord				
Number examined:	50	34	30	50
Average severity:	0.0	0.0	0.0	0.0
Hemorrhage				
Average severity:	0.0	0.0	0.1	0.0
Inflammation, acute				
Average severity:	0.0	0.0	0.1	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Lesion incidence summary with average severity grades  
Study Number: FY01013M

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Controls from group(s): 1	Animal sex:		Affected	
	W i t h	D i a g n o s e s	M a l e s	--
T i s s u e s	No. in group:	CtIs	2	3
Nose/Turbinates 1	50	50	50	50
Degeneration - respiratory epithelium	1	0	0	0
Average severity:	0.0	0.0	0.0	0.0
Degeneration, hyaline - respiratory epithelium	0	3	5	3
Average severity:	0.0	0.1	0.2	0.1
Metaplasia, squamous - respiratory epithelium	3	2	1	0
Average severity:	0.1	0.1	0.0	0.0
Metaplasia, squamous - transitional epithelium	1	0	0	0
Average severity:	0.0	0.0	0.0	0.0
Inflammation, mixed	7	5	8	6
Average severity:	0.3	0.2	0.2	0.2
Inflammation - nasolacrimal duct	11	11	15	12
Average severity:	0.5	0.6	0.6	0.7
Inflammation - respiratory epithelium	1	0	0	1
Average severity:	0.0	0.0	0.0	0.0
Hyperplasia - respiratory epithelium	3	0	3	4
Average severity:	0.2	0.0	0.1	0.2
Nose/Turbinates 2	50	50	50	50
Degeneration - olfactory epithelium	1	0	0	0
Average severity:	0.0	0.0	0.0	0.0
Degeneration, hyaline - olfactory epithelium	0	5	7	6
Average severity:	0.0	0.2	0.2	0.2
Degeneration - respiratory epithelium	0	0	1	0
Average severity:	0.0	0.0	0.0	0.0
Degeneration, hyaline - respiratory epithelium	0	1	2	3
Average severity:	0.0	0.0	0.1	0.1
Metaplasia, secretory - olfactory epithelium	0	1	0	0
Average severity:	0.0	0.1	0.0	0.0
Metaplasia, squamous - olfactory epithelium	0	1	0	0
Average severity:	0.0	0.0	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Lovellace Respiratory Research Institute  
 Rat/F344/N  
 Lesion incidence summary with average severity grades  
 Study Number: FY01013M  
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Controls from group(s): 1		-- Animals		Affected --	
	Animal sex:	--- Males ---			
T i s u e s	Dosage group:	CtIs	2	3	4
W i t h	No. in group:	50	50	50	50
D i a g n o s e s	Number examined:	50	50	50	50
Nose/Turbinates 2	respiratory epithelium	0.0	0.0	0.0	0.0
Metaplasia, squamous - respiratory epithelium	Average severity:	0.0	0.0	0.0	0.0
Inflammation, mixed	Average severity:	4	6	3	5
		0.2	0.2	0.1	0.2
Hyperplasia - respiratory epithelium	Average severity:	0	2	2	3
		0.0	0.1	0.1	0.2
Nose/Turbinates 3	Number examined:	50	50	50	50
Degeneration, hyaline - olfactory epithelium	Average severity:	2	1	7	7
		0.0	0.0	0.2	0.3
Inflammation, mixed	Average severity:	4	1	1	3
		0.2	0.0	0.0	0.1
Nose/Turbinates 4	Number examined:	50	50	50	50
Degeneration - olfactory epithelium	Average severity:	0	0	1	0
		0.0	0.0	0.0	0.0
Degeneration, hyaline - olfactory epithelium	Average severity:	0	0	1	1
		0.0	0.0	0.0	0.0
Inflammation, mixed	Average severity:	2	0	1	2
		0.1	0.0	0.0	0.0
Preputial gland	Number examined:	4	1	3	2
Cyst, epithelial inclusion	Average severity:	0	0	1	0
		0.0	0.0	0.3	0.0
Ectasia	Average severity:	2	1	2	2
		1.8	4.0	2.0	3.0
Inflammation, chronic	Average severity:	1	0	0	1
		0.5	0.0	0.0	0.5
Inflammation, mixed	Average severity:	3	0	0	1
		2.5	0.0	0.0	1.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Lesion incidence summary with average severity grades  
Study Number: FY01013M

Lovelace Respiratory  
Research Institute  
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Controls from group(s): 1	Animal sex:		Affected	
	Male	Female	Male	Female
Tissues With Diagnosis	CtIs	No. in group	Average severity	Number examined
Pancreatic LN	5	2	0.0	2
Iliac LN	3	1	0.0	4
Dilatation, sinusoidal	0	0	0.0	0
Lymph node other	6	4	0.0	9
Dilatation, sinusoidal	0	1	0.0	0
Infiltration, histiocytic	0	1	0.0	1
Sinus plasmacytosis	1	0	0.7	0
Mediastinal LN	49	30	0.1	30
Hemorrhage	2	1	0.1	2
Pigmentation	0	1	0.0	0
Pituitary gland	49	37	0.0	34
Angiectasis	2	0	0.0	0
Cyst	4	7	0.2	7
Hemorrhage	3	0	0.1	0
Inflammation, chronic	0	0	0.0	0
Hyperplasia, pars distalis, focal	5	4	0.1	3
Tiss.not specifi	1	2	0.0	3
Cyst	0	0	0.0	0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Tissues With Diagnosis	-- Animals		Affected --	
	CtIs	Males	CtIs	Males
Controls from group(s): 1				
Animal sex:				
Dosage group:				
No. in group:	50	50	50	50
Number examined:	1	2	3	5
Average severity:	0.0	0.0	0.3	0.0
Myodegeneration	0	1	0	0
Average severity:	0.0	1.0	0.0	0.0
Inflammation, mixed	0	0	1	0
Average severity:	0.0	0.0	1.3	0.0
Splenic tissue, "accessory"	0	0	0	1
Average severity:	0.0	0.0	0.0	0.2
Harderian gland	1	0	0	0
Number examined:				
Thymus	1	0	0	2
Number examined:				
Hemorrhage	0	0	0	1
Average severity:	0.0	0.0	0.0	1.0
Mediastinum	1	0	0	0
Number examined:				
Tail	1	2	1	0
Number examined:				
Cyst, epithelial inclusion	0	1	0	0
Average severity:	0.0	0.5	0.0	0.0
Inflammation, acute	1	0	0	0
Average severity:	4.0	0.0	0.0	0.0
Inflammation, mixed	0	2	1	0
Average severity:	0.0	3.0	4.0	0.0
Hyperplasia/hyperkeratosis	0	2	1	0
Average severity:	0.0	3.5	3.0	0.0
Popliteal LN	2	0	2	2
Number examined:				
Bone, other	0	1	0	1
Number examined:				
Hyperostosis	0	1	0	0
Average severity:	0.0	2.0	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

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 Lesion incidence summary with average severity grades  
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Controls from group(s): 1		-- Animals		Affected --	
Animal sex:		--	Males	--	
Dosage group:		CtIs	2	3	4
No. in group:		50	50	50	50
Zymbal's gland	.....Number examined:	0	0	0	1
Mesentery	.....Number examined:	0	1	1	0
Inflammation, mixed		0	1	0	0
	Average severity:	0.0	4.0	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

M-6 Raw Data

Raw Data Listing for Microscopic Tissue Evaluations  
Study Number:FY01013M

Lovellace Respiratory  
Research Institute  
Rat/F344/N

Group	Sex	Dosage	Animal >	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E410	6831E412	6831E414	
1	M	0 g/m3	Animal >	6831E401	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E410	6831E412	6831E414
			Death code >	U2	U2	U2	U2	U2	U2	FS	U2	U2	U2	FS
			Tissue/diagnosis											
				142	142	142	142	142	142	142	142	142	142	142
			Lungs (17)											
			Status >											
			Operator >											
			4-Alveolar histiocytosis											
			299-Autolysis, marked											1
			3-Congestion											
			82-Fibrosis, focal											
			154-Hemorrhage		1=									
			306-Metaplasia, squam - alv epi											
			233-Mineralization, uremic											
			298-Cyst, squamous, keratiniz											
			187-Inflammation, acute											4=
			84-Inflammation, mixed											
			214-Inflammation, granulomatous											
			1-Hyperplasia, alv epi, focal		2=									
			5-Hyperplasia, alv epi, wdsprd											
			104-B-Adenoma, bronchiolo-alv											
			240-N-Sarcoma, histiocytic											
			2-N-Leukemia,monuc - cap invol	1=	2						2	2=		2
			131-N-Leukemia,monuc - inv invol											
			Trachea (6)											
			Status >											
			Operator >											
			188-Metaplasia, squamous	142	142	142	142	142	142	142	142	142	142	142
			7-Inflammation, acute											3
			85-Inflammation, mixed											
			177-Inflammation, chronic											
			86-Hyperplasia, epithelial											
			215-N-Leukemia, mononuclear											
			Bronchial (TBLN) (3)											
			Status >							H				
			Operator >	142	142	142	142	142	142	142	142	142	142	142
			8-Hemorrhage											
			243-N-Sarcoma, histiocytic											
			9-N-Leukemia, monuc				1=							
			Thyroid glands (7)											
			Status >											
			Operator >	142	142	142	142	142	142	142	142	142	142	142
			115-Cyst, follicular											
			73-Hyperplasia, C-cell, focal							P				
			153-Hyperplasia, follicular cell											
			10-B-Adenoma, C-cell											
			87-B-Adenoma, follicular cell											
			204-M-Carcinoma, C-cell											
			125-M-Carcinoma, follicular cell											

Group Sex Dosage	Animal >	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E410	6831E411	6831E412	6831E414
Tissue/diagnosis	Animal >	U2	U2	U2	U2	U2	FS	U2	U2	U2	U2	U2
	Death code >											
	Status >							mH	mH	mH	m	m
	Operator >	142	142	142	142	142	142	142	142	142	142	142
235-Hyperplasia, diffuse	S											
203-Hyperplasia, focal	S											
Aorta (2)	Status >											
	Operator >	142	142	142	142	142	142	142	142	142	142	142
132-N-Leukemia,monuc - inv invol	P											
325-Dilatation	Status >											
	Operator >	U	U	U	U	U	U	U	U	U	U	U
Esophagus	Status >	142	142	142	142	142	142	142	142	142	142	142
	Operator >	142	142	142	142	142	142	142	142	142	142	142
Larynx (5)	Status >											
	Operator >	142	142	142	142	142	142	142	142	142	142	142
95-Ulceration	S											
18-Inflammation, mixed	S	2	2	2	1		1	2	2	2	2	2
19-Inflammation, chronic	S										1	
16-Metaplasia, squamous	S						1					2
15-Hyperplasia, epithelial	S	1	1	2					1	1		1
Salivary gland (3)	Status >											
	Operator >	142	142	142	142	142	142	142	142	142	142	142
225-Degen	S											
236-Inflammation, acute	S											
20-M-Leukemia, monuc	S											
Mandibular LN (4)	Status >							*H				
	Operator >	142	142	142	142	142	142	142	142	142	142	142
126-Hemorrhage	S											
118-Sinus plasmacytosis	S						3=					
60-Hyperplasia, lymphoid	S							2=				
21-N-Leukemia, monuc	S								1	1		1
Liver (17)	Status >											
	Operator >	142	142	142	142	142	142	142	142	142	142	142
26-Angiectasis	S		2							1		
160-Congestion	S											
272-Cyst	S											
99-Fatty Change	S											
158-Foci cell alter, basophilic	S											
123-Hdn	P											
22-Necrosis	S			2								1
231-Thrombus	S											
23-Vacuoliz, cyto	S											
29-Inflammation, chronic	S						1					
27-Hyperplasia, biliary	S											
28-Hyperplasia, hepato, regen	S	3	3	3	3	2	2	2	3	3	1	2
122-B-Adenoma, hepatocellular	S											
												1=

Raw Data Listing for Microscopic Tissue Evaluations  
Study Number: FY01013M

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6831E401	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E409	6831E410	6831E411	6831E412	6831E413	6831E414
1 M 0 g/m3	Animal >	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2
Tissue/diagnosis	Death code >							FS						FS	FS
		2=	2	2	2	2=	-	-	-	2	2=	1	-	-	2
Liver (17)	Status >														
150-M-Carcinoma, hepatocellular	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
246-M-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-	-
310-M-Sarcoma, undifferentiated		-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-M-Leukemia, monuc		2=	2	2	2	2=	-	-	-	2	2=	1	-	-	2
Spleen (7)	Status >														
285-Congestion	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
63-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
247-Hemorrhage	s	-	-	-	-	-	-	-	-	2=	-	-	-	-	-
129-Necrosis	s	-	-	4=	-	-	-	-	-	-	-	-	-	-	-
201-M-Fibrosarc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-M-Leukemia, monuc		2=	2=	2=	2=	2=	-	-	-	2	2=	2=	-	-	2=
326-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kidneys (9)	Status >														
161-Cyst	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
248-Degen, hyaline droplet	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
251-Infarct	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33-Nephropathy, chronic	s	2	1	2	2	2	2	3	-	3	3	3	1	3	2
130-Pigment, tubular epithelium	s	-	-	3	-	-	-	-	-	-	-	-	-	-	-
274-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
213-B-Adenoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-	-
191-M-Carcinoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-	-
68-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	1	-	-	-
Heart (6)	Status >														
96-Degen, myocyte	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
116-Fibrosis	s	-	-	-	-	-	-	1	-	-	-	-	-	-	1
206-Thrombus	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
279-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34-Inflammation, focal, chronic	s	1	-	-	1	-	-	-	1	-	1	-	-	1	-
35-M-Leukemia, monuc		-	-	-	-	1	-	-	-	-	-	1	-	-	-
Stomach (2)	Status >														
101-Inflammation, mixed	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
100-Hyperplasia, sq epi	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cecum (1)	Status >														
69-N-Leukemia, monuc	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
		-	-	-	-	-	-	-	-	-	-	-	-	-	-

Raw Data Listing for Microscopic Tissue Evaluations  
Study Number:FY01013M

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	6831E401	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E409	6831E410	6831E411	6831E412	6831E413	6831E414
1 M 0 g/m3	U2	U2	U2	U2	U2	U2	FS	U2	U2	U2	U2	U2	FS	U2
Tissue/diagnosis	Animal >													
	Death code >													
Urinary bladder (5)	Status >													
178-Hemorrhage	Operator >													
193-Inflammation, mixed	s	s	s	s	s	s	s	s	s	s	s	s	s	s
37-Inflammation, chronic	s	s	s	s	s	s	s	s	s	s	s	s	s	s
61-B-Papilloma, transitional								1=						
134-M-Leukemia, monoc														
Duodenum	Status >													
	Operator >													
Jejunum (1)														
80-M-Adenocarcinoma	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Ileum (3)	Status >													
78-Hyperplasia, lymphoid	Operator >													
81-B-Fibroma	s	s	s	s	s	s	s	s	s	s	s	s	s	s
207-N-Leukemia, monoc														
Colon (2)	Status >													
197-Inflammation, mixed	Operator >													
156-B-Leiomyoma	s	s	s	s	s	s	s	s	s	s	s	s	s	s
Pancreas (2)	Status >													
323-M-Carcinoma, ductal cell	Operator >													
135-M-Leukemia, monoc														
Rectum	Status >													
	Operator >													
Adrenal glands (10)														
164-Cyst	142	142	142	142	142	142	142	142	142	142	142	142	142	142
62-Degen, cytopl vacuol														
194-Necrosis	s	s	s	s	s	s	s	s	s	s	s	s	s	s
108-Thrombus	s	s	s	s	s	s	s	s	s	s	s	s	s	s
277-Hyperplasia, cort, diffuse	s	s	s	s	s	s	s	s	s	s	s	s	s	s
38-Hyperplasia, medulla, focal	p	p	p	p	p	p	p	p	p	p	p	p	p	p
77-B-Pheochrom, bgn														
305-B-Pheochro, complex, benign	1	1	1	1	1	1	1	1	1	1	1	1	1	1
74-M-Pheochromocytoma, malig														
57-M-Leukemia, monoc														

Group Sex Dosage	Animal >	6831E401	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E409	6831E410	6831E411	6831E412	6831E413	6831E414
1 M 0 g/m3	Animal >	U2	U2	U2	U2	U2	U2	FS	U2	U2	U2	U2	U2	FS	U2
Tissue/diagnosis	Animal >	6831E401	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E409	6831E410	6831E411	6831E412	6831E413	6831E414
	Death code >	U2	U2	U2	U2	U2	U2	FS	U2	U2	U2	U2	U2	FS	U2
Prostate (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
143-Atrophy	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88-Inflammation, acute	S	1	1	1	1	1	1	1	1	1	1	1	1	1	2
64-Inflammation, mixed	S	-	-	-	-	-	-	3	-	-	-	-	-	-	-
Epididymis (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
119-Atrophy	S	-	-	-	-	-	-	-	-	-	-	-	-	3=	-
242-Granuloma, sperm	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
198-M-Mesothelio, mal	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seminal vesicle (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
120-Atrophy	S	-	-	-	-	-	-	-	-	-	-	-	-	3	2
182-Dilatation	S	-	-	-	-	-	-	-	-	-	-	-	-	-	3=
307-Hyperplasia	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
136-M-Leukemia, monuc	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
147-Hemorrhage	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43-N-Leukemia, monuc	S	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Testes (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
152-Atrophy	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287-Hemorrhage	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
105-Hyperplasia, interst cell	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54-B-Adenoma, interstitial	P	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=
199-M-Mesothelioma, malig	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciatic nerve (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Muscle, skeletal (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
304-Inflammation, chronic	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Lovelace Respiratory  
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Group Sex Dosage	Animal >	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E410	6831E412	6831E414
1 M 0 g/m3	Animal >	6831E401	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E410	6831E412	6831E414
Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	FS	U2	U2	U2	FS
Mammary gland (6)	Status >	*	*	*	*	*	*	*H	*	*	*
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142
284-Cyst	p	-	-	-	-	-	-	-	-	-	-
166-Ectasia	s	-	-	-	-	-	-	-	-	-	3
155-Hyperplasia, lobular	s	-	-	-	-	-	-	-	-	-	-
165-B-Fibroadenoma	-	-	-	-	-	-	-	-	-	-	-
55-B-Fibroma	1=	-	-	-	-	-	-	-	-	-	-
266-N-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-
Skin (13)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142
229-Cyst, epith inc	p	-	-	-	-	-	-	-	-	-	-
140-Fibrosis	s	-	-	-	-	-	-	-	-	-	-
221-Hyperkeratosis	s	-	-	-	-	-	-	-	-	-	-
241-Necrosis	s	-	-	-	-	-	-	-	-	-	-
237-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-
148-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-
149-B-Fibroma	-	-	-	-	-	-	-	-	-	-	-
176-B-Keratoacanthoma	-	-	-	-	-	-	-	-	-	-	-
223-B-Tumor, basal cell, benign	-	-	-	-	-	-	-	-	-	-	-
309-B-Tumor, hair follicle, ben	-	-	-	-	-	-	-	-	-	-	-
300-M-Carcinoma, sebaceous cell	-	-	-	-	-	-	-	-	-	-	-
303-M-Sarcoma, undifferentiated	-	-	-	-	-	-	-	-	-	-	-
327-N-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-
Brain (10)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142
44-Compression	s	-	-	-	-	-	-	-	-	-	2=
103-Ectasia, ventricular sys	s	-	-	-	-	-	-	-	-	-	-
226-Edema	s	-	-	-	-	-	-	-	-	-	-
189-Gliosis	s	-	-	-	-	-	-	-	-	-	-
183-Hemorrhage	s	-	-	2	-	-	-	-	-	-	-
192-Mineralization	s	-	-	-	-	-	-	-	-	-	-
45-Necrosis	s	-	-	-	-	-	-	-	-	-	-
275-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-
190-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-
224-M-Astrocytoma, malignant	-	-	-	-	-	-	-	-	-	-	-
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142
89-Atrophy	s	-	-	-	-	-	-	-	-	-	-
110-Atrophy, retinal, unilat	s	-	-	-	-	-	-	-	-	-	-
111-Cataract	p	-	-	-	-	-	-	-	-	-	-
90-Degen	s	-	-	-	-	-	-	-	-	-	-
144-Metaplasia, osseous, sclera	s	-	-	1	-	-	-	-	-	1	-
46-Mineralization, corneal str	s	-	-	-	-	-	-	-	-	-	-
59-Mineralization, scleral	s	-	-	-	1	-	-	-	-	-	-
121-Neovascularization, corneal	s	-	-	-	-	-	-	-	-	-	2
180-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E409	6831E410	6831E411	6831E412	6831E414	
1 M 0 g/m3	Animal >	6831E401	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E409	6831E410	6831E411	6831E412	6831E414
Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	U2	FS	U2	U2	U2	U2	FS	U2
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
127-Inflammation, mixed	s													
278-Inflammation, chronic	s													
216-M-Leukemia, monuc														
Bone, femur (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
209-New bone, endosteal	s													
212-Inflammation, acute	s													
Spinal cord (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
48-Degen, white matter	s													
184-Hemorrhage	s			2										
280-Inflammation, acute	s													
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
261-Degeneration-resp epith	s													
222-Degeneration,hyal-Resp Epith	s													
106-Metaplasia, squ-resp epith	s													
124-Metaplasia, squ-trans epith	s													
91-Inflammation, mixed	s						2					1		3
49-Inflammation-nasolac duct	s						3					2		
107-Inflammation-resp epith	s													
186-Hyperplasia-resp epith	s							3						3
217-M-Leukemia, monuc														
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
98-Degeneration-olfact epith	s													
51-Degeneration,hyaline-olf epi	s													
262-Degeneration-resp epith	s													
202-Degeneration, hyal-resp epi	s													
210-Metaplasia, sec-olfact epith	s													
292-Metaplasia, squ-olfact epith	s													
312-Metaplasia, squ-resp epith	s													
92-Inflammation, mixed	s													3
227-Hyperplasia-resp epith	s													
112-M-Carcinoma, squamous cell								2=						
218-M-Leukemia, monuc														
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
52-Degeneration, hyal-olf epi	s													
93-Inflammation, mixed	s				1									
195-M-Carcinoma, squamous cell														3
219-M-Leukemia, monuc														

Group	Sex	Dosage	Animal >	6831E401	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E409	6831E410	6831E411	6831E412	6831E413	6831E414
1	M	0 g/m3	Animal >	U2	U2	U2	U2	U2	U2	FS	U2	U2	U2	U2	U2	FS	U2
			Animal >	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2
			Death code >														
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >														
			313-Degeneration-olfact epith s														
			168-Degeneration, hyal-olf epi s														
			94-Inflammation, mixed s														3
			196-N-Carcinoma, squamous cell					2=									
			220-M-Leukemia, monuc														
			Preputial gland (4)	M	M	M	M	M	M	M	M	M	M	M	M	M	M
			Status >														
			Operator >														
			283-Cyst, epithelial inclusion p														
			66-Ectasia s														
			128-Inflammation, chronic s														
			67-Inflammation, mixed s														3
			Pancreatic LN (1)	M	M	M	M	M	M	M	M	M	M	M	M	M	M
			Status >														
			Operator >														
			71-N-Leukemia, monuc														
			Iliac LN (2)	M	M	M	M	M	M	M	M	M	M	M	M	M	M
			Status >														
			Operator >														
			282-Dilatation, sinusoidal s														
			72-N-Leukemia, monuc														
			Lymph node other (4)	M	M	M	M	M	M	M	M	M	M	M	M	M	M
			Status >														
			Operator >														
			270-Dilatation, sinusoidal s														
			169-Infiltration, histiocytic s														
			142-Sinus plasmacytosis s														
			75-N-Leukemia, monuc														
			Mediastinal LN (4)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Status >														
			Operator >														
			13-Hemorrhage s														
			171-Pigmentation s														
			267-N-Sarcoma, histiocytic														
			14-N-Leukemia, monuc														
			Pituitary gland (7)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Status >														
			Operator >														
			173-Angiectasis s														
			40-Cyst s														
			172-Hemorrhage s														
			232-Inflammation, chronic s														
			42-Hyperplasia, pars dist, fcl s														
			39-B-Adenoma, pars distalis														
			138-M-Leukemia, monuc														

Group Sex Dosage	Animal >	6831E402	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E410	6831E411	6831E412	6831E414
1 M 0 g/m3	Animal >	6831E401	6831E403	6831E404	6831E405	6831E406	6831E407	6831E408	6831E410	6831E411	6831E412	6831E414
Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	FS	U2	U2	U2	U2	FS
	Status >	M	M	M	M	M	M	M	M	M	M	M
	Operator >											
181-Cyst	s				142							
276-Mammary tissue	p											
286-Myodegeneration	s											
281-Inflammation, mixed	s											
308-B-Fibroma												
113-B-Lipoma												
200-M-Mesothelio, mal												
328-N-Sarcoma, histiocytic												
331-Splenic tissue, "accessory"	p											
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M
	Operator >											
114-N-Carcinoma, squamous cell					142							
					2NT.							
Thymus (2)	Status >	M	M	M	M	M	M	M	M	M	M	M
	Operator >											
324-Hemorrhage	s											
137-M-Leukemia, monuc												
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M
	Operator >											
139-N-Leukemia, monuc												
Tail (4)	Status >	M	M	M	M	M	M	M	M	M	M	M
	Operator >											
302-Cyst, epi inclusion	p											
145-Inflammation, acute	s											
174-Inflammation, mixed	s											
175-Hyperplasia/hyperkeratosis	s											
Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M
	Operator >											
151-N-Leukemia, monuc												
Bone, other (2)	Status >	M	M	M	M	M	M	M	M	M	M	M
	Operator >											
269-Hyperostosis	s											
228-M-Sarcoma, NOS												
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M
	Operator >											
297-M-Carcinoma, squamous cell												

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Group	Sex	Dosage	Animal >	6831E402	6831E404	6831E406	6831E408	6831E410	6831E412	6831E414
1	M	0 g/m3	Animal >	6831E401	6831E403	6831E405	6831E407	6831E411	6831E413	6831E415
		Tissue/diagnosis	Death code >	U2	U2	U2	FS	U2	U2	FS
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		Operator >	S							

301-Inflammation, mixed  
311-M-Mesothelio, mal

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Group	Sex	Dosage	Animal >	6831E417	6831E419	6831E421	6831E423	6831E425	6831E427	6831E429
1	M	0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E422	6831E424	6831E426	6831E428
			Death code >	U2	FS	U2	FS	U2	U2	U2
			Tissue/diagnosis	U2	U2	U2	U2	U1	U2	U2
Lungs (17)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
4-Alveolar histiocytosis			s	-	-	1	-	-	-	1
299-Autolysis, marked			p	-	-	-	-	-	-	-
3-Congestion			s	-	-	-	-	-	-	-
82-Fibrosis, focal			s	-	-	-	-	-	-	2
154-Hemorrhage			s	-	-	-	-	-	-	-
306-Metaplasia, squam - alv epi			s	-	-	-	-	-	-	-
233-Mineralization, uremic			s	-	-	-	-	-	-	-
298-Cyst, squamous, keratiniz			p	-	-	-	-	-	-	-
187-Inflammation, acute			s	-	-	-	-	-	-	3=
84-Inflammation, mixed			s	-	-	-	-	-	-	-
214-Inflammation, granulomatous			s	-	-	-	-	-	-	-
1-Hyperplasia, alv epi, focal			s	-	-	-	-	-	-	1
5-Hyperplasia, alv epi, wdsprd			s	2	-	-	-	-	-	-
104-B-Adenoma, bronchiolo-alv			s	-	-	-	-	-	-	-
240-N-Sarcoma, histiocytic			s	-	-	-	-	-	-	-
2-N-Leukemia,monuc - cap invol			s	2=	-	2=	2	-	2	2=
131-N-Leukemia,monuc - inv invol			s	-	-	-	-	-	-	2=
Trachea (6)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
188-Metaplasia, squamous			s	-	-	-	-	-	-	-
7-Inflammation, acute			s	-	-	-	-	-	-	-
85-Inflammation, mixed			s	-	-	-	-	-	-	2
177-Inflammation, chronic			s	-	-	-	-	-	-	-
86-Hyperplasia, epithelial			s	-	-	-	-	-	-	2
215-N-Leukemia, mononuclear			s	-	-	1	-	-	-	-
Bronchial (TBLN) (3)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
8-Hemorrhage			s	-	-	-	-	-	-	-
243-N-Sarcoma, histiocytic			s	-	-	-	-	-	-	-
9-N-Leukemia, monuc			s	1	-	1=	-	-	2=	1=
Thyroid glands (7)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
115-Cyst, follicular			p	-	-	-	-	-	-	m
73-Hyperplasia, C-cell, focal			s	2	3	-	-	-	1	-
153-Hyperplasia, follicular cell			s	-	-	-	-	-	-	-
10-B-Adenoma, C-cell			s	-	-	-	-	-	-	-
87-B-Adenoma, follicular cell			s	-	-	-	-	-	-	2=
204-M-Carcinoma, C-cell			s	-	-	-	-	-	-	-
125-M-Carcinoma, follicular cell			s	-	-	-	1=	-	-	-

Group	Sex	Dosage	Animal >	6831E417	6831E419	6831E421	6831E423	6831E425	6831E427	6831E429
1	M	0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E422	6831E424	6831E426	6831E428
			Death code >	U2	U2	U2	FS	U2	U2	U2
			Tissue/diagnosis							
			Parathyroid (2)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			235-Hyperplasia, diffuse							
			203-Hyperplasia, focal							
			Aorta (2)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			132-N-Leukemia,monuc - inv invol							
			325-Dilatation							
			Status >	U	U	U	U	U	U	U
			Operator >	142	142	142	142	142	142	142
			Esophagus							
			Larynx (5)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			95-Ulceration							
			18-Inflammation, mixed							
			19-Inflammation, chronic							
			16-Metaplasia, squamous							
			15-Hyperplasia, epithelial							
			Salivary gland (3)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			225-Degen							
			236-Inflammation, acute							
			20-M-Leukemia, monuc							
			Mandibular LN (4)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			126-Hemorrhage							
			118-Sinus plasmacytosis							
			60-Hyperplasia, lymphoid							
			21-N-Leukemia, monuc							
			Liver (17)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			26-Angiectasis							
			160-Congestion							
			272-Cyst							
			99-Fatty Change							
			158-Foci cell alter, basophilic							
			123-Hdn							
			22-Necrosis							
			231-Thrombus							
			23-Vaculoliz, cyto							
			29-Inflammation, chronic							
			27-Hyperplasia, biliary							
			28-Hyperplasia, hepato, regen							
			122-B-Adenoma, hepatocellular							

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Lovelace Respiratory  
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Group	Sex	Dosage	Animal >	6831E417	6831E419	6831E421	6831E423	6831E425	6831E427	6831E429
1	M	0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E422	6831E424	6831E426	6831E428
			Death code >	U2	FS	U2	FS	U2	U2	U2
			Tissue/diagnosis	U2	U2	U2	U2	U1	U2	U2
Liver (17)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
			150-M-Carcinoma, hepatocellular	-	-	-	-	-	-	-
			246-M-Sarcoma, histiocytic	-	-	-	-	-	-	-
			310-M-Sarcoma, undifferentiated	-	-	-	-	-	-	-
			24-M-Leukemia, monuc	2=	-	2	-	2	-	2
Spleen (7)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
			285-Congestion	-	-	-	-	-	-	-
			63-Fibrosis	-	-	-	-	2=	-	-
			247-Hemorrhage	-	-	-	-	-	-	-
			129-Necrosis	-	-	-	-	4=	-	-
			201-M-Fibrosarc	-	-	-	-	-	-	-
			30-M-Leukemia, monuc	2=	2=	2=	2=	2=	2=	2=
			326-N-Sarcoma, histiocytic	-	-	-	-	-	-	-
Kidneys (9)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
			161-Cyst	-	-	-	-	-	-	-
			248-Degen, hyaline droplet	-	-	-	-	-	-	-
			251-Infarct	-	-	-	-	-	-	-
			33-Nephropathy, chronic	3	3=	2	2	2	1	2
			130-Pigment, tubular epithelium	-	-	-	-	-	-	-
			274-Inflammation, acute	-	-	-	-	-	-	-
			213-B-Adenoma, renal tubule	-	-	-	-	-	-	-
			191-M-Carcinoma, renal tubule	-	-	-	-	-	-	-
			68-M-Leukemia, monuc	-	-	1	-	-	1	1
Heart (6)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
			96-Degen, myocyte	-	-	1	-	-	-	-
			116-Fibrosis	-	-	-	-	-	-	-
			206-Thrombus	-	-	2	-	-	-	-
			279-Inflammation, acute	-	-	-	-	-	-	-
			34-Inflammation, focal, chronic	1	1	1	1	1	1	1
			35-M-Leukemia, monuc	-	-	1	-	-	1	-
Stomach (2)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
			101-Inflammation, mixed	-	2	-	-	-	-	-
			100-Hyperplasia, sq epi	-	4	-	-	-	-	-
Cecum (1)										
			Status >	142	142	142	142	142	142	142
			Operator >	142	142	142	142	142	142	142
			69-N-Leukemia, monuc	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6831E417	6831E419	6831E421	6831E423	6831E425	6831E427	6831E429
1 M 0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E422	6831E424	6831E426	6831E428
Tissue/diagnosis	Death code >	U2	FS	U2	FS	U2	U2	U2
Urinary bladder (5)	Status >	142	142	142	142	142	142	142
178-Hemorrhage	Operator >	-	-	-	-	-	-	-
193-Inflammation, mixed	s	-	-	-	-	-	-	-
37-Inflammation, chronic	s	-	-	-	-	-	-	-
61-B-Papilloma, transitional		-	-	-	-	-	-	-
134-M-Leukemia, monoc		-	-	-	-	-	1	-
Duodenum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Jejunum (1)	Status >	142	142	142	142	142	142	142
80-M-Adenocarcinoma	Operator >	-	-	-	-	-	-	2=
Ileum (3)	Status >	142	142	142	142	142	142	142
78-Hyperplasia, lymphoid	Operator >	-	-	-	-	3	-	-
81-B-Fibroma	s	-	-	-	-	-	-	1=
207-N-Leukemia, monoc		-	-	-	-	-	-	-
Colon (2)	Status >	142	142	142	142	142	142	142
197-Inflammation, mixed	Operator >	-	-	-	-	-	-	-
156-B-Leiomyoma	s	-	-	-	-	-	-	-
Pancreas (2)	Status >	142	142	142	142	142	142	142
323-M-Carcinoma, ductal cell	Operator >	-	-	-	-	-	-	-
135-M-Leukemia, monoc		-	-	-	-	-	1	-
Rectum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Adrenal glands (10)	Status >	142	142	142	142	142	142	142
164-Cyst	Operator >	-	-	-	-	-	-	-
62-Degen, cytopl vacuol	s	-	1	-	-	-	-	-
194-Necrosis	s	-	-	-	-	-	-	-
108-Thrombus	s	-	-	-	-	-	2	-
277-Hyperplasia, cort, diffuse	s	-	-	-	-	-	-	-
38-Hyperplasia, medulla, focal	p	-	-	-	-	-	-	-
77-B-Pheochrom, bgn		1	-	-	-	-	1	-
305-B-Pheochro, complex, benign		-	-	-	-	-	-	-
74-M-Pheochromocytoma, malig		1	-	-	-	-	-	-
57-M-Leukemia, monoc		-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6831E419	6831E420	6831E421	6831E422	6831E423	6831E424	6831E425	6831E426	6831E427	6831E428	6831E429	6831E430		
1 M 0 g/m3	Animal >	6831E417	6831E418	6831E419	6831E420	6831E421	6831E422	6831E423	6831E424	6831E425	6831E426	6831E427	6831E428	6831E429	6831E430
Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2	U2
Prostate (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
143-Atrophy	S	-	-	2	-	-	-	-	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88-Inflammation, acute	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64-Inflammation, mixed	S	1	-	-	-	1	-	-	-	-	-	2	-	-	2=
Epididymis (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
119-Atrophy	S	-	-	2	-	-	-	-	-	-	-	-	-	-	-
242-Granuloma, sperm	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
198-M-Mesothelio, mal	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seminal vesicle (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
120-Atrophy	S	-	3=	2	-	-	2	-	-	-	2	-	-	-	-
182-Dilatation	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
307-Hyperplasia	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
136-M-Leukemia, monuc	S	-	-	-	-	-	-	-	-	-	-	1=	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
147-Hemorrhage	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-	-	-	-	-	3	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43-N-Leukemia, monuc	S	-	-	-	1=	-	-	-	-	-	-	-	-	-	-
Testes (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
152-Atrophy	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287-Hemorrhage	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
105-Hyperplasia, interst cell	P	-	P	-	-	-	-	-	-	-	-	P	-	-	-
54-B-Adenoma, interstitial	P	1=	-	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=
199-M-Mesothelioma, malig	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciatic nerve (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Muscle, skeletal (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
304-Inflammation, chronic	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6831E417	6831E419	6831E420	6831E421	6831E423	6831E425	6831E427	6831E429
1	M	0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E421	6831E422	6831E424	6831E426	6831E428
			Death code >	U2	FS	U2	U2	FS	U2	U2	U2
			Tissue/diagnosis								
			Mammary gland (6)								
			Status >	142	142	142	142	142	142	142	142
			Operator >								
			284-Cyst								
			166-Ectasia								
			155-Hyperplasia, lobular								
			165-B-Fibroadenoma								
			55-B-Fibroma								
			266-N-Sarcoma, histiocytic								
			Skin (13)								
			Status >	142	142	142	142	142	142	142	142
			Operator >								
			229-Cyst, epith inc								
			140-Fibrosis								
			221-Hyperkeratosis								
			241-Necrosis								
			237-Inflammation, mixed								
			148-Inflammation, chronic								
			149-B-Fibroma								
			176-B-Keratoacanthoma								
			223-B-Tumor, basal cell, benign								
			309-B-Tumor, hair follicle, ben								
			300-M-Carcinoma, sebaceous cell								
			303-M-Sarcoma, undifferentiated								
			327-N-Sarcoma, histiocytic								
			Brain (10)								
			Status >	142	142	142	142	142	142	142	142
			Operator >								
			44-Compression								
			103-Ectasia, ventricular sys								
			226-Edema								
			189-Gliosis								
			183-Hemorrhage								
			192-Mineralization								
			45-Necrosis								
			275-Inflammation, acute								
			190-Inflammation, chronic								
			224-M-Astrocytoma, malignant								
			Eyes/optic nerve (12)								
			Status >	142	142	142	142	142	142	142	142
			Operator >								
			89-Atrophy								
			110-Atrophy, retinal, unilat								
			111-Cataract								
			90-Degen								
			144-Metaplasia, osseous, sclera								
			46-Mineralization, corneal str								
			59-Mineralization, scleral								
			121-Neovascularization, corneal								
			180-Inflammation, acute								

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Group Sex Dosage	Animal >	6831E417	6831E419	6831E421	6831E423	6831E425	6831E427	6831E429
1 M 0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E422	6831E424	6831E426	6831E428
Tissue/diagnosis	Death code >	U2	FS	U2	FS	U2	U2	U2
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
127-Inflammation, mixed	s	-	-	-	1	-	-	-
278-Inflammation, chronic	s	-	-	-	-	-	-	-
216-M-Leukemia, monuc	s	-	1=	-	-	-	-	-
Bone, femur (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
209-New bone, endosteal	s	-	-	-	-	-	-	-
212-Inflammation, acute	s	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
48-Degen, white matter	s	-	-	-	-	-	1	-
184-Hemorrhage	s	-	-	-	-	-	-	-
280-Inflammation, acute	s	-	-	-	-	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
261-Degeneration-resp epith	s	-	-	-	-	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	-	-	-	-	-	-
106-Metaplasia, squ-resp epith	s	-	-	-	-	-	3	-
124-Metaplasia, squ-trans epith	s	-	1	-	-	-	-	-
91-Inflammation, mixed	s	-	-	-	-	-	2	-
49-Inflammation-nasolac duct	s	2	-	-	2	-	-	-
107-Inflammation-resp epith	s	-	-	-	-	-	-	-
186-Hyperplasia-resp epith	s	-	-	-	-	-	-	-
217-M-Leukemia, monuc	s	-	-	1	-	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
98-Degeneration-olfact epith	s	-	-	-	-	-	-	-
51-Degeneration,hyaline-olf epi	s	-	-	-	-	-	-	-
262-Degeneration-resp epith	s	-	-	-	-	-	-	-
202-Degeneration, hyal-resp epith	s	-	-	-	-	-	-	-
210-Metaplasia, sec-olfact epith	s	-	-	-	-	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-	-	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-
92-Inflammation, mixed	s	-	-	-	-	-	-	4
227-Hyperplasia-resp epith	s	-	-	-	-	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-
218-M-Leukemia, monuc	s	-	-	1	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
52-Degeneration, hyal-olf epi	s	-	-	-	-	-	-	-
93-Inflammation, mixed	s	-	-	-	-	-	-	4
195-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-
219-M-Leukemia, monuc	s	-	-	1	-	-	-	-

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Group	Sex	Dosage	Animal >	6831E417	6831E419	6831E420	6831E421	6831E422	6831E423	6831E424	6831E425	6831E426	6831E427	6831E428	6831E429	6831E430
1	M	0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E421	6831E422	6831E423	6831E424	6831E425	6831E426	6831E427	6831E428	6831E429	6831E430
			Death code >	U2	FS	U2	U2	FS	U2	U2	U1	U2	U2	U2	U2	U2
			Tissue/diagnosis													
			Nose/Turbinates 4 (5)													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >													
			313-Degeneration-olfact epith s													
			168-Degeneration, hyal-olf epi s													
			94-Inflammation, mixed s													3
			196-N-Carcinoma, squamous cell													
			220-M-Leukemia, monoc													
			Preputial gland (4)													
			Status >	M	MH	M	M	M	M	M	M	M	M	M	M	M
			Operator >	142	142			142								
			283-Cyst, epithelial inclusion p													
			66-Ectasia s													
			128-Inflammation, chronic s					2=								
			67-Inflammation, mixed s		4=											
			Pancreatic LN (1)													
			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
			Operator >	142				142		142						
			71-N-Leukemia, monoc													
			Iliac LN (2)													
			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
			Operator >													
			282-Dilatation, sinusoidal s													
			72-N-Leukemia, monoc													
			Lymph node other (4)													
			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
			Operator >	142									142		142	
			270-Dilatation, sinusoidal s													
			169-Infiltration, histiocytic s													
			142-Sinus plasmacytosis s													
			75-N-Leukemia, monoc													1=
			Mediastinal LN (4)													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >													
			13-Hemorrhage s													
			171-Pigmentation s													
			267-N-Sarcoma, histiocytic													
			14-N-Leukemia, monoc													1=
			Pituitary gland (7)													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >													
			173-Angiectasis s													
			40-Cyst s													
			172-Hemorrhage s									1				
			232-Inflammation, chronic s													
			42-Hyperplasia, pars dist, fcl s													2
			39-B-Adenoma, pars distalis													1=
			138-M-Leukemia, monoc													2=

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Group	Sex	Dosage	Animal	6831E417	6831E419	6831E420	6831E421	6831E423	6831E425	6831E427	6831E429
1	M	0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E421	6831E423	6831E425	6831E427	6831E429
			Animal >	U2	U2	U2	U2	U2	U1	U2	U2
			Death code >	U2	FS	U2	U2	U2	U2	U2	U2
			Tissue/diagnosis								
			Tiss.not specifi (9)	M	M	M	M	M	M	M	M
			Operator >								
			181-Cyst								
			276-Mammary tissue								
			286-Myodegeneration								
			281-Inflammation, mixed								
			308-B-Fibroma								
			113-B-Lipoma								
			200-M-Mesothelio, mal								
			328-N-Sarcoma, histiocytic								
			331-Splenic tissue, "accessory" p								
			Harderian gland (1)	M	M	M	M	M	M	M	M
			Operator >								
			114-N-Carcinoma, squamous cell								
			Thymus (2)	M	M	M	M	M	M	M	M
			Status >								
			Operator >								
			324-Hemorrhage							142	
			137-M-Leukemia, monuc							1=	
			Mediastinum (1)	M	M	M	M	M	M	M	M
			Operator >								
			139-N-Leukemia, monuc								
			Tail (4)	M	M	M	M	M	M	M	M
			Status >								
			Operator >								
			302-Cyst, epi inclusion								
			145-Inflammation, acute								
			174-Inflammation, mixed								
			175-Hyperplasia/hyperkeratosis								
			Operator >								
			Popliteal LN (1)	M	M	M	M	M	M	M	M
			Operator >								
			151-N-Leukemia, monuc								
			Bone, other (2)								
			Status >								
			Operator >								
			269-Hyperostosis								
			228-M-Sarcoma, NOS								
			Zymbal's gland (1)	M	M	M	M	M	M	M	M
			Operator >								
			297-M-Carcinoma, squamous cell								

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Lovelace Respiratory  
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Group	Sex	Dosage	Animal >	6831E417	6831E419	6831E421	6831E423	6831E425	6831E427	6831E429
1	M	0 g/m3	Animal >	6831E416	6831E418	6831E420	6831E422	6831E424	6831E426	6831E428
		Tissue/diagnosis	Death code >	U2	FS	U2	FS	U2	U2	U2
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >							
		311-M-Mesothelio, mal	S							



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Group Sex Dosage	Animal >	6831E432	6831E434	6831E436	6831E438	6831E440	6831E442	6831E444
1 M 0 g/m3	Animal >	6831E431	6831E433	6831E435	6831E437	6831E439	6831E441	6831E443
Tissue/diagnosis	Death code >	U2	U2	FS	FS	U2	U2	FS
Parathyroid (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
235-Hyperplasia, diffuse	s							
203-Hyperplasia, focal	s							
Aorta (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
132-N-Leukemia,monuc - inv invol	p							
325-Dilatation	Status >	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142
Esophagus	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
95-Ulceration	s	2						
18-Inflammation, mixed	s	2	2	1	2	2	2	1
19-Inflammation, chronic	s		1					
16-Metaplasia, squamous	s	2					2	
15-Hyperplasia, epithelial	s	2	1		1			2
Salivary gland (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
225-Degen	s							
236-Inflammation, acute	s							
20-M-Leukemia, monuc	Status >	*H				*		*
Mandibular LN (4)	Operator >	142	142	142	142	142	142	142
126-Hemorrhage	s							
118-Sinus plasmacytosis	s							
60-Hyperplasia, lymphoid	s							
21-N-Leukemia, monuc	Status >				1		1	1
Liver (17)	Operator >	142	142	142	142	142	142	142
26-Angiectasis	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
160-Congestion	s	1		1	2		1	2
272-Cyst	s							
99-Fatty Change	s		3=					
158-Foci cell alter, basophilic	s				1			
123-Hdn	p							
22-Necrosis	s							
231-Thrombus	s							
23-Vacuoliz, cyto	s							
29-Inflammation, chronic	s	1				1		
27-Hyperplasia, biliary	s	2	1	2	3	2	2	3
28-Hyperplasia, hepato, regen	s							
122-B-Adenoma, hepatocellular	s							

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Group Sex Dosage	Animal >	6831E432	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444	
1 M 0 g/m3	Animal >	6831E431	6831E432	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444
Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	FS	FS	U2	FS	FS	U2	FS	FS	U2
Liver (17)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
150-M-Carcinoma, hepatocellular	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
246-M-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-	-
310-M-Sarcoma, undifferentiated		-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-M-Leukemia, monuc		-	2=	-	-	-	-	-	2=	-	-	2	-	-	2=
Spleen (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
285-Congestion	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63-Fibrosis	s	-	3=	-	-	-	-	-	-	-	-	-	-	-	-
247-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
129-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
201-M-Fibrosarc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-M-Leukemia, monuc		-	2=	-	-	-	-	-	2=	-	-	2=	-	-	2=
326-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kidneys (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
161-Cyst	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
248-Degen, hyaline droplet	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
251-Infarct	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33-Nephropathy, chronic	s	-	-	2	2	3=	2	1	2	1	2	1	4=	2	3=
130-Pigment, tubular epithelium	s	-	-	-	-	-	-	-	3	-	-	-	-	-	-
274-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
213-B-Adenoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-	-
191-M-Carcinoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-	-
68-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heart (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
96-Degen, myocyte	Operator >	-	1	-	-	-	-	-	-	-	-	-	-	-	-
116-Fibrosis	s	-	-	-	-	-	2	-	-	-	-	2	-	-	-
206-Thrombus	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
279-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34-Inflammation, focal, chronic	s	1	-	-	-	-	-	-	2	1	-	1	-	-	1
35-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stomach (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
101-Inflammation, mixed	Operator >	-	-	-	3=	-	-	-	-	-	-	-	-	-	-
100-Hyperplasia, sq epi	s	-	-	-	4	-	-	-	-	-	-	-	-	-	-
Cecum (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
69-N-Leukemia, monuc	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6831E432	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444
1 M 0 g/m3	Animal >	6831E431	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444
Tissue/diagnosis	Death code >	U2	U2	U2	FS	FS	FS	U2	U2	FS	U2	FS	FS	U2
Urinary bladder (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
178-Hemorrhage	Operator >													
193-Inflammation, mixed	s													
37-Inflammation, chronic	s													
61-B-Papilloma, transitional														
134-M-Leukemia, monoc														
Duodenum	Status >	U	U	U	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Jejunum (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
80-M-Adenocarcinoma	Operator >													
Ileum (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
78-Hyperplasia, lymphoid	Operator >													
81-B-Fibroma	s								2					
207-N-Leukemia, monoc														
Colon (2)	Status >	a											H	
197-Inflammation, mixed	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
156-B-Leiomyoma	s													
Pancreas (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
323-M-Carcinoma, ductal cell	Operator >													
135-M-Leukemia, monoc														
Rectum	Status >	U	U	U	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Adrenal glands (10)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
164-Cyst	Operator >													
62-Degen, cytopl vacuol	s													
194-Necrosis	s				2									
108-Thrombus	s													
277-Hyperplasia, cort, diffuse	s													1
38-Hyperplasia, medulla, focal	p													
77-B-Pheochrom, bgn													1	1=
305-B-Pheochro, complex, benign														
74-M-Pheochromocytoma, malig										1=				
57-M-Leukemia, monoc														

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Group Sex Dosage	6831E431	6831E432	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444
1 M 0 g/m3	U2	U2	U2	U2	FS	FS	FS	U2	U2	FS	U2	FS	FS	U2
Tissue/diagnosis	Animal >	Animal >	Animal >	Animal >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >
Prostate (6)	Status >	Status >	Status >	Status >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
143-Atrophy	142	142	142	142	142	142	142	142	142	142	142	142	142	142
179-Hemorrhage	S	S	S	S	2	2	2	2	2	2	2	2	2	2
109-Mineralization	S	S	S	S										1
273-Hyperplasia	S	S	S	S										
88-Inflammation, acute	S	S	S	S										
64-Inflammation, mixed	2	2	2	2	3	2	2	2	2	2	2	2	1	2
Epididymis (4)	Status >	Status >	Status >	Status >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
119-Atrophy	142	142	142	142	142	142	142	142	142	142	142	142	142	142
242-Granuloma, sperm	S	S	S	S	3	3	3	3	3	3	3	3	3	3
97-Inflammation, chronic	S	S	S	S	2	2	2	2	2	2	2	2	2	2
198-M-Mesothelio, mal	S	S	S	S										
Seminal vesicle (4)	Status >	Status >	Status >	Status >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
120-Atrophy	142	142	142	142	142	142	142	142	142	142	142	142	142	142
182-Dilatation	S	S	S	S	3=	3=	3=	3=	3=	3=	3=	3=	3=	3=
307-Hyperplasia	S	S	S	S										
136-M-Leukemia, monuc	S	S	S	S										
Mesenteric LN (4)	Status >	Status >	Status >	Status >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
147-Hemorrhage	142	142	142	142	142	142	142	142	142	142	142	142	142	142
79-Histiocytosis, sinus	S	S	S	S	2	2	2	2	2	2	2	2	2	2
257-N-Sarcoma, histiocytic	S	S	S	S										
43-N-Leukemia, monuc	S	S	S	S										
Testes (5)	Status >	Status >	Status >	Status >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
152-Atrophy	142	142	142	142	142	142	142	142	142	142	142	142	142	142
287-Hemorrhage	S	S	S	S										
105-Hyperplasia, interst cell	P	P	P	P										P
54-B-Adenoma, interstitial	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=
199-M-Mesothelioma, malig														
Sciatic nerve (1)	Status >	Status >	Status >	Status >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
83-N-Leukemia, monuc	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Muscle, skeletal (3)	Status >	Status >	Status >	Status >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
304-Inflammation, chronic	142	142	142	142	142	142	142	142	142	142	142	142	142	142
258-N-Sarcoma, histiocytic	S	S	S	S										
271-M-Leukemia, monuc	S	S	S	S										

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Group	Sex	Dosage	Animal >	6831E432	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444
1	M	0 g/m3	Animal >	U2	U2	U2	FS	FS	FS	U2	U2	FS	U2	FS	FS	U2
Tissue/diagnosis			Animal >	U2	U2	U2	FS	FS	FS	U2	U2	FS	U2	FS	FS	U2
Mammary gland (6)			Status >	*	*	*	*	*	*	*	*	*	*	*	*	*
Operator >			142	142	142	142	142	142	142	142	142	142	142	142	142	142
284-Cyst			P	-	-	-	-	-	-	-	-	-	-	-	-	-
166-Ectasia			S	-	-	-	-	-	-	-	-	-	-	-	-	-
155-Hyperplasia, lobular			S	-	-	-	-	-	-	-	-	-	-	-	-	-
165-B-Fibroadenoma			-	-	-	-	-	-	-	-	-	-	-	-	-	-
55-B-Fibroma			-	1=	-	-	-	-	-	-	-	-	-	-	-	-
266-N-Sarcoma, histiocytic			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skin (13)			Status >	*	*	*	*	*	*	*	*	*	*	*	*	*
Operator >			142	142	142	142	142	142	142	142	142	142	142	142	142	142
229-Cyst, epith inc			P	-	-	-	-	-	-	-	-	-	-	-	-	-
140-Fibrosis			S	-	-	-	2	-	-	-	-	-	-	-	-	-
221-Hyperkeratosis			S	-	-	-	-	-	4=	-	-	-	-	-	-	-
241-Necrosis			S	-	-	-	-	-	-	-	-	-	-	-	-	-
237-Inflammation, mixed			S	-	-	-	-	-	-	-	-	-	-	-	-	-
148-Inflammation, chronic			S	-	-	-	-	-	1	-	-	-	-	-	-	-
149-B-Fibroma			-	-	-	-	-	-	-	1=	-	-	-	-	-	-
176-B-Keratoacanthoma			-	-	-	-	-	-	-	-	-	-	-	-	-	-
223-B-Tumor, basal cell, benign			-	-	-	-	-	-	-	-	-	-	-	-	-	-
309-B-Tumor, hair follicle, ben			-	-	-	-	-	-	-	-	-	-	-	-	-	-
300-M-Carcinoma, sebaceous cell			-	-	-	-	-	-	-	-	-	-	-	-	-	-
303-M-Sarcoma, undifferentiated			-	-	-	-	-	-	-	-	-	-	-	-	-	-
327-N-Sarcoma, histiocytic			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brain (10)			Status >	H	H	H	H	H	H	H	H	H	H	H	H	H
Operator >			142	142	142	142	142	142	142	142	142	142	142	142	142	142
44-Compression			S	-	-	-	3=	-	-	-	-	-	-	-	-	-
103-Ectasia, ventricular sys			S	-	-	-	-	-	-	-	-	-	-	-	-	-
226-Edema			S	-	-	-	-	-	-	-	-	-	-	-	-	-
189-Gliosis			S	4	-	-	-	-	-	-	-	-	-	-	-	-
183-Hemorrhage			S	-	-	-	-	-	-	-	-	-	-	-	-	-
192-Mineralization			S	-	-	-	-	-	-	-	-	-	-	-	-	-
45-Necrosis			S	-	-	-	-	-	-	-	-	-	-	-	-	-
275-Inflammation, acute			S	-	-	-	-	-	-	-	-	-	-	-	-	-
190-Inflammation, chronic			S	4	-	-	-	-	-	-	-	-	-	-	-	-
224-M-Astrocytoma, malignant			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eyes/optic nerve (12)			Status >	*	*	*	*	*	*	*	*	*	*	*	*	*
Operator >			142	142	142	142	142	142	142	142	142	142	142	142	142	142
89-Atrophy			S	-	-	-	-	-	-	-	-	-	-	-	-	-
110-Atrophy, retinal, unilat			S	-	-	-	-	-	-	-	-	-	-	-	-	3
111-Cataract			P	-	-	-	-	-	-	-	-	-	-	-	-	P
90-Degen			S	-	-	-	-	-	-	-	-	-	-	-	-	-
144-Metaplasia, osseous, sclera			S	-	-	-	-	1	-	-	-	-	-	-	-	-
46-Mineralization, corneal str			S	-	-	-	-	-	-	-	-	-	-	-	-	-
59-Mineralization, scleral			S	-	-	-	-	-	-	-	-	-	-	-	-	-
121-Neovascularization, corneal			S	-	-	-	-	-	-	-	-	-	-	-	-	-
180-Inflammation, acute			S	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6831E432	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444
1 M 0 g/m3	Animal >	U2	U2	U2	FS	FS	FS	U2	U2	FS	U2	FS	FS	U2
Tissue/diagnosis	Death code >													
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
127-Inflammation, mixed	s													
278-Inflammation, chronic	s													
216-M-Leukemia, monuc														
Bone, femur (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
209-New bone, endosteal	s													
212-Inflammation, acute	s													
Spinal cord (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
48-Degen, white matter	s													
184-Hemorrhage	s													
280-Inflammation, acute	s													
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
261-Degeneration-resp epith	s													
222-Degeneration,hyal-Resp Epith	s													
106-Metaplasia, squ-resp epith	s													
124-Metaplasia, squ-trans epith	s													
91-Inflammation, mixed	s													
49-Inflammation-nasolac duct	s													
107-Inflammation-resp epith	s													
186-Hyperplasia-resp epith	s													
217-M-Leukemia, monuc														
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
98-Degeneration-olfact epith	s													
51-Degeneration,hyaline-olf epi	s													
262-Degeneration-resp epith	s													
202-Degeneration, hyal-resp epi	s													
210-Metaplasia, sec-olfact epith	s													
292-Metaplasia, squ-olfact epith	s													
312-Metaplasia, squ-resp epith	s													
92-Inflammation, mixed	s													
227-Hyperplasia-resp epith	s													
112-M-Carcinoma, squamous cell														
218-M-Leukemia, monuc														
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
52-Degeneration, hyal-olf epi	s													
93-Inflammation, mixed	s													
195-M-Carcinoma, squamous cell														
219-M-Leukemia, monuc														

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Group	Sex	Dosage	Animal >	6831E432	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444
1	M	0 g/m3	Animal >	U2	U2	U2	FS	FS	FS	U2	U2	FS	U2	FS	FS	U2
			Animal >	U2	U2	U2	FS	FS	FS	U2	U2	FS	U2	FS	FS	U2
			Death code >													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >													
			313-Degeneration-olfact epith s													
			168-Degeneration, hyal-olf epi s													
			94-Inflammation, mixed s													
			196-N-Carcinoma, squamous cell													
			220-M-Leukemia, monuc													
			Preputial gland (4)	M	M	M	M	M	M	M	M	M	M	M	M	M
			Status >													
			Operator >													
			283-Cyst, epithelial inclusion p													
			66-Ectasia s													
			128-Inflammation, chronic s													
			67-Inflammation, mixed s													
			Pancreatic LN (1)	M	M	M	M	M	M	M	M	M	M	M	M	M
			Status >													
			Operator >													
			71-N-Leukemia, monuc													
			Iliac LN (2)	M	M	M	M	M	M	M	M	M	M	M	M	M
			Status >													
			Operator >													
			282-Dilatation, sinusoidal s													
			72-N-Leukemia, monuc													
			Lymph node other (4)	M	M	M	M	M	M	M	M	M	M	M	M	M
			Status >													
			Operator >													
			270-Dilatation, sinusoidal s													
			169-Infiltration, histiocytic s													
			142-Sinus plasmacytosis s													
			75-N-Leukemia, monuc													
			Mediastinal LN (4)	142	142	142	142	142	142	142	142	142	142	142	142	142
			Status >													
			Operator >													
			13-Hemorrhage s													
			171-Pigmentation s													
			267-N-Sarcoma, histiocytic s													
			14-N-Leukemia, monuc													
			Pituitary gland (7)	142	142	142	142	142	142	142	142	142	142	142	142	142
			Status >													
			Operator >													
			173-Angiectasis s													
			40-Cyst s													
			172-Hemorrhage s													
			232-Inflammation, chronic s													
			42-Hyperplasia, pars dist, fcl s													
			39-B-Adenoma, pars distalis													
			138-M-Leukemia, monuc													

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Group	Sex	Dosage	Animal >	6831E432	6831E433	6831E434	6831E435	6831E436	6831E437	6831E438	6831E439	6831E440	6831E441	6831E442	6831E443	6831E444
1	M	0 g/m3	Animal >	U2	U2	U2	FS	FS	FS	U2	U2	FS	U2	FS	FS	U2
		Tissue/diagnosis	Death code >													
		Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >														
		181-Cyst														
		276-Mammary tissue	s													
		286-Myodegeneration	s													
		281-Inflammation, mixed	s													
		308-B-Fibroma														
		113-B-Lipoma														
		200-M-Mesothelio, mal														
		328-N-Sarcoma, histiocytic														
		331-Splenic tissue, "accessory"	p													
		Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >														
		114-N-Carcinoma, squamous cell														
		Thymus (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >														
		324-Hemorrhage	s													
		137-M-Leukemia, monuc														
		Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >														
		139-N-Leukemia, monuc														
		Tail (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >														
		302-Cyst, epi inclusion	p													
		145-Inflammation, acute	s													
		174-Inflammation, mixed	s													
		175-Hyperplasia/hyperkeratosis	s													
		Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >														
		151-N-Leukemia, monuc														
		Bone, other (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >														
		269-Hyperostosis	s													
		228-M-Sarcoma, NOS														
		Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >														
		297-M-Carcinoma, squamous cell														

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Group	Sex	Dosage	Animal >	6831E432	6831E434	6831E436	6831E438	6831E440	6831E442	6831E444
1	M	0 g/m3	Animal >	6831E431	6831E433	6831E435	6831E437	6831E439	6831E441	6831E443
		Tissue/diagnosis	Death code >	U2	U2	FS	FS	U2	U2	FS
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		Operator >	S							

301-Inflammation, mixed  
311-M-Mesothelio, mal

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Group	Sex	Dosage	Animal >	6831E447	6831E449
1	M	0 g/m3	Animal >	6831E446	6831E448
			Death code >	FS U2	FS FS
					6831E450
					FS U2

Lungs (17)

Status >	Operator >	142	142	142	142	142	142
4-Alveolar histiocytosis	s	-	-	-	-	1	-
299-Autolysis, marked	p	-	-	-	-	-	-
3-Congestion	s	-	-	-	-	-	-
82-Fibrosis, focal	s	-	-	-	-	-	-
154-Hemorrhage	s	-	-	-	-	-	-
306-Metaplasia, squam - alv epi	s	-	-	-	-	-	-
233-Mineralization, uremic	s	-	-	-	-	-	-
298-Cyst, squamous, keratiniz	p	-	-	-	-	-	-
187-Inflammation, acute	s	-	-	-	-	-	-
84-Inflammation, mixed	s	-	-	-	-	-	-
214-Inflammation, granulomatous	s	-	-	-	-	-	-
1-Hyperplasia, alv epi, focal	s	1	-	1	-	-	-
5-Hyperplasia, alv epi, wdsprd	s	-	-	-	-	-	-
104-B-Adenoma, bronchiolo-alv	s	-	-	-	-	-	-
240-N-Sarcoma, histiocytic	s	-	-	-	-	-	-
2-N-Leukemia,monuc - cap invol	s	2	2	-	-	-	1
131-N-Leukemia,monuc - inv invol	s	-	-	-	-	-	-

Trachea (6)

Status >	Operator >	142	142	142	142	142	142
188-Metaplasia, squamous	s	-	-	-	-	-	-
7-Inflammation, acute	s	-	-	-	-	-	-
85-Inflammation, mixed	s	-	-	-	-	-	-
177-Inflammation, chronic	s	-	-	-	-	-	-
86-Hyperplasia, epithelial	s	-	-	-	-	-	-
215-N-Leukemia, mononuclear	s	-	-	-	-	-	-

Bronchial (TBLN) (3)

Status >	Operator >	142	142	142	142	142	142
8-Hemorrhage	s	-	-	-	-	-	-
243-N-Sarcoma, histiocytic	s	-	-	-	-	-	-
9-N-Leukemia, monuc	s	1	1	-	-	-	-

Thyroid glands (7)

Status >	Operator >	142	142	142	142	142	142
115-Cyst, follicular	p	-	-	-	-	-	-
73-Hyperplasia, C-cell, focal	s	2	-	-	-	-	-
153-Hyperplasia, follicular cell	s	-	-	-	-	-	-
10-B-Adenoma, C-cell	s	-	-	-	-	-	-
87-B-Adenoma, follicular cell	s	-	-	1	-	-	-
204-M-Carcinoma, C-cell	s	-	-	-	-	-	-
125-M-Carcinoma, follicular cell	s	-	-	-	-	-	-



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Group	Sex	Dosage	Animal >	6831E447	6831E449	6831E448	6831E450
1	M	0 g/m3	Animal >	6831E446	6831E448	FS	FS
Tissue/diagnosis			Death code >	U2	FS	FS	U2
<hr/>							
Liver (17)							
Status >							
Operator >							
150-M-Carcinoma, hepatocellular				142	142	142	142
246-M-Sarcoma, histiocytic				-	-	-	-
310-M-Sarcoma, undifferentiated				-	-	-	-
24-M-Leukemia, monuc				2	2=	1	2=
Spleen (7)							
Status >							
Operator >							
285-Congestion				142	142	142	142
63-Fibrosis				s	-	-	-
247-Hemorrhage				s	-	-	-
129-Necrosis				s	-	-	-
201-M-Fibrosarc				-	-	-	-
30-M-Leukemia, monuc				2=	2=	1	1
326-N-Sarcoma, histiocytic				-	-	-	-
Kidneys (9)							
Status >							
Operator >							
161-Cyst				142	142	142	142
248-Degen, hyaline droplet				-	-	-	-
251-Infarct				-	-	-	-
33-Nephropathy, chronic				3	2	2	3
130-Pigment, tubular epithelium				s	-	-	-
274-Inflammation, acute				s	-	-	-
213-B-Adenoma, renal tubule				-	-	-	-
191-M-Carcinoma, renal tubule				-	-	-	-
68-M-Leukemia, monuc				-	-	-	-
Heart (6)							
Status >							
Operator >							
96-Degen, myocyte				142	142	142	142
116-Fibrosis				-	-	-	-
206-Thrombus				-	-	-	-
279-Inflammation, acute				-	-	-	-
34-Inflammation, focal, chronic				-	-	1	1
35-M-Leukemia, monuc				-	-	-	-
Stomach (2)							
Status >							
Operator >							
101-Inflammation, mixed				142	142	142	142
100-Hyperplasia, sq epi				-	-	-	-
Cecum (1)							
Status >							
Operator >							
69-N-Leukemia, monuc				142	142	142	142

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Group Sex Dosage	Animal >	6831E447	6831E449
1 M 0 g/m3	Animal >	6831E446	6831E450
Tissue/diagnosis	Death code >	FS U2	FS U2
Urinary bladder (5)	Status >	142	142
178-Hemorrhage	Operator >	142	142
193-Inflammation, mixed s	s	-	-
37-Inflammation, chronic s	s	1	1
61-B-Papilloma, transitional		-	-
134-M-Leukemia, monuc		-	-
Duodenum	Status >	U	U
	Operator >	142	142
Jejunum (1)	Status >	142	142
80-M-Adenocarcinoma	Operator >	142	142
Ileum (3)	Status >	142	142
78-Hyperplasia, lymphoid s	Operator >	142	142
81-B-Fibroma		-	-
207-N-Leukemia, monuc		-	-
Colon (2)	Status >	142	142
197-Inflammation, mixed s	Operator >	142	142
156-B-Leiomyoma		-	-
Pancreas (2)	Status >	142	142
323-M-Carcinoma, ductal cell	Operator >	142	142
135-M-Leukemia, monuc		-	-
Rectum	Status >	U	U
	Operator >	142	142
Adrenal glands (10)	Status >	142	142
164-Cyst s	Operator >	142	142
62-Degen, cytopl vacuol s	s	-	-
194-Necrosis s	s	-	-
108-Thrombus s	s	-	-
277-Hyperplasia, cort, diffuse s	s	-	-
38-Hyperplasia, medulla, focal p	p	-	-
77-B-Pheochrom, bgn		-	-
305-B-Pheochro, complex, benign		-	-
74-M-Pheochromocytoma, malign		-	-
57-M-Leukemia, monuc		1	1

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Group Sex Dosage	Animal >	6831E447	6831E449
1 M 0 g/m3	Animal >	6831E446	6831E450
Tissue/diagnosis	Death code >	FS U2	FS U2
Prostate (6)	Status >		
	Operator >	142 142 142 142 142 142	142 142 142 142 142 142
143-Atrophy	S	-	-
179-Hemorrhage	S	-	-
109-Mineralization	S	-	-
273-Hyperplasia	S	-	-
88-Inflammation, acute	S	-	-
64-Inflammation, mixed	S	1	-
Epididymis (4)	Status >		
	Operator >	142 142 142 142	142 142 142 142
119-Atrophy	S	-	-
242-Granuloma, sperm	S	-	-
97-Inflammation, chronic	S	-	-
198-M-Mesothelio, mal	S	-	-
Seminal vesicle (4)	Status >		
	Operator >	142 142 142 142	142 142 142 142
120-Atrophy	S	1	-
182-Dilatation	S	-	-
307-Hyperplasia	S	-	-
136-M-Leukemia, monuc	S	-	-
Mesenteric LN (4)	Status >		
	Operator >	142 142 142 142	142 142 142 142
147-Hemorrhage	S	-	-
79-Histiocytosis, sinus	S	-	-
257-N-Sarcoma, histiocytic	S	-	-
43-N-Leukemia, monuc	S	2	2
Testes (5)	Status >		
	Operator >	142 142 142 142 142	142 142 142 142 142
152-Atrophy	S	4	-
287-Hemorrhage	S	-	-
105-Hyperplasia, interst cell	P	-	-
54-B-Adenoma, interstitial	P	1=	1=
199-M-Mesothelioma, malig	P	-	-
Sciatic nerve (1)	Status >		
	Operator >	142 142 142 142	142 142 142 142
83-N-Leukemia, monuc	S	-	-
Muscle, skeletal (3)	Status >		
	Operator >	142 142 142 142	142 142 142 142
304-Inflammation, chronic	S	-	-
258-N-Sarcoma, histiocytic	S	-	-
271-M-Leukemia, monuc	S	-	-

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Group	Sex	Dosage	Animal >	6831E447	6831E449	6831E450
1	M	0 g/m3	Animal >	6831E446	6831E448	6831E450
			Death code >	FS U2	FS	FS U2
			Tissue/diagnosis			
<b>Mammary gland (6)</b>						
			Status >		*	
			Operator >	142	142	142
284-Cyst			P	-	-	142
166-Ectasia			S	-	-	-
155-Hyperplasia, lobular			S	-	-	-
165-B-Fibroadenoma				-	-	-
55-B-Fibroma				-	-	-
266-N-Sarcoma, histiocytic				-	-	-
<b>Skin (13)</b>						
			Status >			
			Operator >	142	142	142
229-Cyst, epith inc			P	-	-	142
140-Fibrosis			S	-	-	-
221-Hyperkeratosis			S	-	-	-
241-Necrosis			S	-	-	-
237-Inflammation, mixed			S	-	-	-
148-Inflammation, chronic			S	-	-	-
149-B-Fibroma				-	-	-
176-B-Keratoacanthoma				-	-	-
223-B-Tumor, basal cell, benign				-	-	-
309-B-Tumor, hair follicle, ben				-	-	-
300-M-Carcinoma, sebaceous cell				-	-	-
303-M-Sarcoma, undifferentiated				-	-	-
327-N-Sarcoma, histiocytic				-	-	-
<b>Brain (10)</b>						
			Status >			
			Operator >	142	142	142
44-Compression			S	-	-	142
103-Ectasia, ventricular sys			S	-	-	-
226-Edema			S	-	-	-
189-Gliosis			S	-	-	-
183-Hemorrhage			S	-	-	-
192-Mineralization			S	-	-	-
45-Necrosis			S	-	-	-
275-Inflammation, acute			S	-	-	-
190-Inflammation, chronic			S	-	-	-
224-M-Astrocytoma, malignant				-	-	-
<b>Eyes/optic nerve (12)</b>						
			Status >			
			Operator >	142	142	142
89-Atrophy			S	-	-	142
110-Atrophy, retinal, unilat			S	-	-	-
111-Cataract			P	-	-	-
90-Degen			S	-	-	-
144-Metaplasia, osseous, sclera			S	-	-	-
46-Mineralization, corneal str			S	-	1	-
59-Mineralization, scleral			S	-	-	-
121-Neovascularization, corneal			S	-	1	-
180-Inflammation, acute			S	-	-	-

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Group Sex Dosage	Animal >	6831E447	6831E449	6831E450
1 M 0 g/m3	Animal >	6831E446	6831E448	6831E450
Tissue/diagnosis	Death code >	FS U2	FS FS	FS U2
Eyes/optic nerve (12)	Status >	142	142	142
Operator >	Operator >	142	142	142
127-Inflammation, mixed	s	-	-	-
278-Inflammation, chronic	s	-	-	-
216-M-Leukemia, monuc	s	-	-	-
Bone, femur (2)	Status >	142	142	142
Operator >	Operator >	142	142	142
209-New bone, endosteal	s	-	-	-
212-Inflammation, acute	s	-	-	-
Spinal cord (3)	Status >	142	142	142
Operator >	Operator >	142	142	142
48-Degen, white matter	s	-	-	-
184-Hemorrhage	s	-	-	-
280-Inflammation, acute	s	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142
Operator >	Operator >	142	142	142
261-Degeneration-resp epith	s	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	-	-
106-Metaplasia, squ-resp epith	s	2	-	-
124-Metaplasia, squ-trans epith	s	-	-	-
91-Inflammation, mixed	s	3	-	-
49-Inflammation-nasolac duct	s	-	3	-
107-Inflammation-resp epith	s	-	-	-
186-Hyperplasia-resp epith	s	-	-	-
217-M-Leukemia, monuc	s	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142
Operator >	Operator >	142	142	142
98-Degeneration-olfact epith	s	-	-	-
51-Degeneration,hyaline-olf epi	s	-	-	-
262-Degeneration-resp epith	s	-	-	-
202-Degeneration, hyal-resp epi	s	-	-	-
210-Metaplasia, sec-olfact epith	s	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-
92-Inflammation, mixed	s	3	-	-
227-Hyperplasia-resp epith	s	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-
218-M-Leukemia, monuc	s	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142
Operator >	Operator >	142	142	142
52-Degeneration, hyal-olf epi	s	-	-	-
93-Inflammation, mixed	s	2	-	-
195-M-Carcinoma, squamous cell	s	-	-	-
219-M-Leukemia, monuc	s	-	-	-

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Lovelace Respiratory  
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Group	Sex	Dosage	Animal >	6831E447	6831E448	6831E449	6831E450
1	M	0 g/m3	Animal >	6831E446	6831E448	6831E449	6831E450
			Death code >	FS	U2	FS	FS
							U2
Tissue/diagnosis							
Nose/Turbinates 4 (5)							
			Status >	142	142	142	142
			Operator >				
			313-Degeneration-olfact epith	-	-	-	-
			168-Degeneration, hyal-olf epi	-	-	-	-
			94-Inflammation, mixed	-	-	-	-
			196-N-Carcinoma, squamous cell	-	-	-	-
			220-M-Leukemia, monuc	-	-	-	-
Preputial gland (4)							
			Status >	M	M	M	M
			Operator >				
			283-Cyst, epithelial inclusion	P			
			66-Ectasia	S			
			128-Inflammation, chronic	S			
			67-Inflammation, mixed	S			
Pancreatic LN (1)							
			Status >	M	M	M	M
			Operator >	142			
				1=			
71-N-Leukemia, monuc							
			Status >	M	M	M	M
			Operator >				
Iliac LN (2)							
			Status >	M	M	M	M
			Operator >				
282-Dilatation, sinusoidal							
			Status >	M	M	M	M
			Operator >				
72-N-Leukemia, monuc							
Lymph node other (4)							
			Status >	M	M	M	M
			Operator >				
270-Dilatation, sinusoidal							
			Status >	M	M	M	M
			Operator >				
169-Infiltration, histiocytic							
			Status >	M	M	M	M
			Operator >				
142-Sinus plasmacytosis							
			Status >	M	M	M	M
			Operator >				
75-N-Leukemia, monuc							
Mediastinal LN (4)							
			Status >	142	142	142	142
			Operator >				
			13-Hemorrhage	S			
			171-Pigmentation	S			
			267-N-Sarcoma, histiocytic				
			14-N-Leukemia, monuc	1=	2		
Pituitary gland (7)							
			Status >	142	142	142	142
			Operator >				
			173-Angiectasis	S			
			40-Cyst	S	3=		
			172-Hemorrhage	S			
			232-Inflammation, chronic	S			
			42-Hyperplasia, pars dist, fcl	S			
			39-B-Adenoma, pars distalis				
			138-M-Leukemia, monuc				

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Group Sex Dosage	Animal >	6831E447	6831E449	6831E450
1 M 0 g/m3	Animal >	6831E446	6831E448	6831E450
Tissue/diagnosis	Death code >	FS U2	FS	FS U2
Tiss.not specifi (9)	Status >	M	M	M
	Operator >			
181-Cyst	S			
276-Mammary tissue	P			
286-Myodegeneration	S			
281-Inflammation, mixed	S			
308-B-Fibroma				
113-B-Lipoma				
200-M-Mesothelio, mal				
328-N-Sarcoma, histiocytic				
331-Splenic tissue, "accessory" P				
Harderian gland (1)	Status >	M	M	M
	Operator >			
114-N-Carcinoma, squamous cell				
Thymus (2)	Status >	M	M	M
	Operator >			
324-Hemorrhage	S			
137-M-Leukemia, monuc				
Mediastinum (1)	Status >	M	M	M
	Operator >			
139-N-Leukemia, monuc				
Tail (4)	Status >	M	M	M
	Operator >			
302-Cyst, epi inclusion	P			
145-Inflammation, acute	S			
174-Inflammation, mixed	S			
175-Hyperplasia/hyperkeratosis	S			
Popliteal LN (1)	Status >	M	M	M
	Operator >			
151-N-Leukemia, monuc				
Bone, other (2)	Status >	M	M	M
	Operator >			
269-Hyperostosis	S			
228-M-Sarcoma, NOS				
Zymbal's gland (1)	Status >	M	M	M
	Operator >			
297-M-Carcinoma, squamous cell				

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Group	Sex	Dosage	Animal >	6831E447	6831E449
1	M	0 g/m3	Animal >	6831E446	6831E448
Tissue/diagnosis		Death code >		FS U2	FS FS U2
Mesentery (2)		Status >		M M M	M M M
301-Inflammation, mixed		Operator >			
311-M-Mesothelio, mal		S			

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Group Sex Dosage	Animal >	6833F502	6833F504	6833F506	6833F508	6833F510	6833F512	6833F514
2 M 2 g/m3	Animal >	6833F501	6833F503	6833F505	6833F507	6833F509	6833F511	6833F513
Tissue/diagnosis	Death code >	U1 FS	U1 U2	FS U2	U2 U2	U2 U2	FS U2	FS U2
Lungs (17)	Status >	a	a					
Operator >		142	142	142	142	142	142	142
4-Alveolar histiocytosis	s	-	-	-	-	-	-	-
299-Autolysis, marked	p	-	1	-	-	1	-	1
3-Congestion	s	-	-	-	-	-	-	-
82-Fibrosis, focal	s	-	-	-	-	-	-	-
154-Hemorrhage	s	-	-	-	-	-	-	1=
306-Metaplasia, squam - alv epi	s	-	-	-	-	-	-	-
233-Mineralization, uremic	s	-	-	-	-	-	-	-
298-Cyst, squamous, keratiniz	p	-	-	-	-	-	-	-
187-Inflammation, acute	s	-	-	-	-	-	-	-
84-Inflammation, mixed	s	-	-	-	-	-	-	-
214-Inflammation, granulomatous	s	-	-	-	-	-	-	-
1-Hyperplasia, alv epi, focal	s	-	-	-	1	-	-	-
5-Hyperplasia, alv epi, wdsprd	s	-	2=	-	-	-	2=	-
104-B-Adenoma, bronchiolo-alv	s	-	-	-	-	-	-	-
240-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
2-N-Leukemia, monuc - cap invol	s	2	2=	-	2=	-	2	2
131-N-Leukemia, monuc - inv invol	s	-	-	-	-	-	-	-
Trachea (6)	Status >							
Operator >		142	142	142	142	142	142	142
188-Metaplasia, squamous	s	-	-	-	-	-	-	-
7-Inflammation, acute	s	-	-	-	-	-	-	-
85-Inflammation, mixed	s	-	-	-	-	-	-	-
177-Inflammation, chronic	s	-	-	-	-	-	-	-
86-Hyperplasia, epithelial	s	-	-	-	-	-	-	-
215-N-Leukemia, mononuclear	s	-	-	-	-	-	-	-
Bronchial (TBLN) (3)	Status >		*					
Operator >		142	142	142	142	142	142	142
8-Hemorrhage	s	-	-	-	-	-	-	-
243-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
9-N-Leukemia, monuc	s	1=	-	-	1=	-	-	1=
Thyroid glands (7)	Status >							
Operator >		142	142	142	142	*H 142	142	142
115-Cyst, follicular	p	-	-	-	-	-	-	-
73-Hyperplasia, C-cell, focal	s	-	-	-	-	-	-	-
153-Hyperplasia, follicular cell	s	-	-	-	-	-	-	-
10-B-Adenoma, C-cell	s	-	-	-	-	-	-	-
87-B-Adenoma, follicular cell	s	-	-	-	-	-	-	-
204-M-Carcinoma, C-cell	s	-	-	-	-	-	-	-
125-M-Carcinoma, follicular cell	s	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6833F501	6833F502	6833F503	6833F504	6833F505	6833F506	6833F507	6833F508	6833F509	6833F510	6833F511	6833F512	6833F513	6833F514
Tissue/diagnosis	Death code >	U1	FS	U1	U2	FS	U2	U2	FS	U2	U2	FS	U2	FS	U2
Parathyroid (2)	Status >	142	142	142	142	142	142	mH	mH	*H	mH	m	m	m	m
235-Hyperplasia, diffuse	Operator >							142	142	142	142	142	142	142	142
203-Hyperplasia, focal	s														
	s														
Aorta (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
132-N-Leukemia,monuc - inv invol	Operator >														
325-Dilatation	p														
Esophagus	Status >	U	U	U	U	U	U	U	U	*H	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142	142	*H	142	142	142	142	142
95-Ulceration	Operator >														
18-Inflammation, mixed	s														
19-Inflammation, chronic	s	2	2	1	2	1	2	2	3		2	2		2	2
16-Metaplasia, squamous	s						1								
15-Hyperplasia, epithelial	s	1			2				2					2	
Salivary gland (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
225-Degen	Operator >														
236-Inflammation, acute	s														
20-M-Leukemia, monuc	s														
Mandibular LN (4)	Status >	142	142	142	142	142	142	m	142	142	142	142	142	142	142
126-Hemorrhage	Operator >														
118-Sinus plasmacytosis	s														
60-Hyperplasia, lymphoid	s														
21-N-Leukemia, monuc	s	1					1=								1=
Liver (17)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
26-Angiectasis	Operator >														
160-Congestion	s									1					
272-Cyst	s														
99-Fatty Change	s														
158-Foci cell alter, basophilic	s														1=
123-Hdn	p														
22-Necrosis	s														
231-Thrombus	s												1		
23-Vacuoliz, cyto	s														1
29-Inflammation, chronic	s														
27-Hyperplasia, biliary	s	3	3	3	3	3	3				2	2		2	2
28-Hyperplasia, hepato, regen	s														
122-B-Adenoma, hepatocellular	s													2=	

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Group Sex Dosage	Animal >	6833F501	6833F502	6833F503	6833F504	6833F505	6833F506	6833F507	6833F508	6833F509	6833F510	6833F511	6833F512	6833F513	6833F514
2 M 2 g/m3	Animal >	U1	FS	U1	U2	FS	U2	U2	FS	U2	U2	FS	U2	FS	U2
Tissue/diagnosis	Death code >														
		2=	2=	2=	2		2=	2					2	2	2
	Status >														
Liver (17)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
150-M-Carcinoma, hepatocellular	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
246-M-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
310-M-Sarcoma, undifferentiated	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-M-Leukemia, monuc	s	2=	2=	2=	2		2=	2					2	2	2
	Status >														
Spleen (7)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
285-Congestion	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
247-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
129-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
201-M-Fibrosarc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-M-Leukemia, monuc		2=	2=	2=	2=	2=	2=	2=	2=	2=	2=	2=	2=	2=	2=
326-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Status >														
Kidneys (9)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
161-Cyst	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
248-Degen, hyaline droplet	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
251-Infarct	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33-Nephropathy, chronic	s	2	2	2	3	2	2	2	3	1	1	3	1	3	2
130-Pigment, tubular epithelium	s	-	-	-	-	-	3	-	-	3	-	-	-	-	-
274-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
213-B-Adenoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-	-
191-M-Carcinoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-	-
68-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Status >														
Heart (6)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
96-Degen, myocyte	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
116-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206-Thrombus	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
279-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34-Inflammation, focal, chronic	s	-	-	-	-	-	-	-	1	-	-	-	-	-	-
35-M-Leukemia, monuc		-	-	-	1	-	-	1	-	-	-	-	-	-	-
	Status >														
Stomach (2)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
101-Inflammation, mixed	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
100-Hyperplasia, sq epi	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Status >														
Cecum (1)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
69-N-Leukemia, monuc	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142

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2 M 2 g/m3	Animal >	6833F501	6833F503	6833F505	6833F507	6833F509	6833F511	6833F513
Tissue/diagnosis	Death code >	U1 FS	U1 U2	FS U2	U2 U2	U2 FS	U2 FS	FS U2
Urinary bladder (5)	Status >	142	142	142	142	142	142	142
178-Hemorrhage	Operator >	-	-	-	-	-	-	-
193-Inflammation, mixed	s	-	-	-	-	-	-	-
37-Inflammation, chronic	s	-	-	-	-	-	-	-
61-B-Papilloma, transitional		-	-	-	-	-	-	-
134-M-Leukemia, monuc		-	-	-	-	-	-	-
Duodenum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Jejunum (1)	Status >	142	142	142	142	142	142	142
80-M-Adenocarcinoma	Operator >	-	-	-	-	-	-	-
Ileum (3)	Status >	142	142	142	142	142	142	142
78-Hyperplasia, lymphoid	Operator >	-	-	-	-	-	-	-
81-B-Fibroma	s	-	-	-	-	-	-	-
207-N-Leukemia, monuc		-	-	-	-	-	-	1
Colon (2)	Status >	142	142	142	142	142	142	142
197-Inflammation, mixed	Operator >	-	-	-	-	-	-	-
156-B-Leiomyoma	s	-	-	-	-	-	-	-
Pancreas (2)	Status >	142	142	142	142	142	142	142
323-M-Carcinoma, ductal cell	Operator >	-	-	-	-	-	-	-
135-M-Leukemia, monuc		-	-	-	-	-	-	-
Rectum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Adrenal glands (10)	Status >	142	142	142	142	142	142	142
164-Cyst	Operator >	-	-	-	-	-	-	-
62-Degen, cytopl vacuol	s	-	-	-	1	-	-	-
194-Necrosis	s	-	-	-	-	-	-	-
108-Thrombus	s	-	-	-	-	-	-	-
277-Hyperplasia, cort, diffuse	s	-	-	-	-	-	-	-
38-Hyperplasia, medulla, focal	p	-	-	-	-	-	-	-
77-B-Pheochrom, bgn		-	1=	-	-	-	-	-
305-B-Pheochro, complex, benign		-	-	-	-	-	-	-
74-M-Pheochromocytoma, malig		-	-	-	-	-	-	-
57-M-Leukemia, monuc		-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6833F502	6833F504	6833F506	6833F508	6833F510	6833F512	6833F514
2 M 2 g/m3	Animal >	6833F501	6833F503	6833F505	6833F507	6833F509	6833F511	6833F513
Tissue/diagnosis	Death code >	U1 FS	U1 U2	FS U2	U2 U2	U2 FS	U2 FS	U2 FS
Prostate (6)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
143-Atrophy	S	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	-	-	-	-
88-Inflammation, acute	S	-	-	-	-	-	-	-
64-Inflammation, mixed	S	-	2	-	-	-	4	-
Epididymis (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	2=	-	-	-	-
119-Atrophy	S	-	-	-	-	-	-	-
242-Granuloma, sperm	S	-	-	-	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	-	-	-
198-M-Mesothelio, mal	S	-	-	-	-	2=	-	-
Seminal vesicle (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
120-Atrophy	S	-	-	-	-	-	-	-
182-Dilatation	S	-	-	-	-	-	-	-
307-Hyperplasia	S	-	-	-	-	-	-	-
136-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
147-Hemorrhage	S	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
43-N-Leukemia, monuc	S	-	-	1	-	-	-	1=
Testes (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
152-Atrophy	S	-	-	-	-	-	-	-
287-Hemorrhage	S	-	-	-	-	-	3	-
105-Hyperplasia, interst cell	P	-	-	-	-	-	-	P
54-B-Adenoma, interstitial	P	1=	1=	1=	1=	1=	1=	1=
199-M-Mesothelioma, malign	P	-	-	-	-	-	-	-
Sciatic nerve (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Muscle, skeletal (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
304-Inflammation, chronic	S	-	-	-	-	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	-	-	-	-	-	-	-

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2 M 2 g/m3	Animal >	6833F501	6833F503	6833F505	6833F507	6833F509	6833F511	6833F513
Tissue/diagnosis	Death code >	U1 FS	U1 U2	FS U2	U2 U2	U2 FS	U2 U2	FS U2
Mammary gland (6)	Status >	142	142	142	142	142	142	142
Operator >								
284-Cyst	P							
166-Ectasia	S							
155-Hyperplasia, lobular	S							
165-B-Fibroadenoma								
55-B-Fibroma								
266-N-Sarcoma, histiocytic								
Skin (13)	Status >	142	142	142	142	142	142	142
Operator >								
229-Cyst, epith inc	P							
140-Fibrosis	S							
221-Hyperkeratosis	S							
241-Necrosis	S							
237-Inflammation, mixed	S							
148-Inflammation, chronic	S							
149-B-Fibroma								
176-B-Keratoacanthoma								
223-B-Tumor, basal cell, benign								
309-B-Tumor, hair follicle, ben								
300-M-Carcinoma, sebaceous cell	1=							
303-M-Sarcoma, undifferentiated								
327-N-Sarcoma, histiocytic								
Brain (10)	Status >	142	142	142	142	142	142	142
Operator >								
44-Compression	S							
103-Ectasia, ventricular sys	S							
226-Edema	S							
189-Gliosis	S							
183-Hemorrhage	S							
192-Mineralization	S							
45-Necrosis	S							
275-Inflammation, acute	S							
190-Inflammation, chronic	S							
224-M-Astrocytoma, malignant								
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
Operator >								
89-Atrophy	S							
110-Atrophy, retinal, unilat	S							
111-Cataract	P							
90-Degen	S							
144-Metaplasia, osseous, sclera	S							
46-Mineralization, corneal str	S							
59-Mineralization, scleral	S							
121-Neovascularization, corneal	S							
180-Inflammation, acute	S							

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2 M 2 g/m3	Animal >	6833F501	6833F503	6833F505	6833F507	6833F509	6833F511	6833F513
Tissue/diagnosis	Death code >	U1 FS	U1 U2	FS U2	U2 U2	U2 U2	FS U2	FS U2
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
Operator >	Operator >						mH	
127-Inflammation, mixed	s	-	-	-	-	3	-	-
278-Inflammation, chronic	s	-	-	-	-	-	-	-
216-M-Leukemia, monuc	s	-	-	-	-	-	-	1
Bone, femur (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
209-New bone, endosteal	s	-	-	-	-	-	-	-
212-Inflammation, acute	s	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
48-Degen, white matter	s	-	-	-	-	-	-	-
184-Hemorrhage	s	-	-	-	-	-	-	-
280-Inflammation, acute	s	-	-	-	-	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
261-Degeneration-resp epith	s	-	-	-	-	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	-	-	-	-	-	-
106-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-
124-Metaplasia, squ-trans epith	s	-	-	-	-	-	-	-
91-Inflammation, mixed	s	-	3	-	-	-	-	-
49-Inflammation-nasolac duct	s	-	3	-	-	3	-	2
107-Inflammation-resp epith	s	-	-	-	-	-	-	-
186-Hyperplasia-resp epith	s	-	-	-	-	-	-	-
217-M-Leukemia, monuc	s	-	-	-	-	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
98-Degeneration-olfact epith	s	-	-	-	-	-	-	-
51-Degeneration,hyaline-olf epi	s	-	-	-	-	-	1	-
262-Degeneration-resp epith	s	-	-	-	-	-	-	-
202-Degeneration, hyal-resp epi	s	-	-	-	-	-	-	-
210-Metaplasia, sec-olfact epith	s	-	-	-	-	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-	-	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-
92-Inflammation, mixed	s	-	-	-	-	-	-	-
227-Hyperplasia-resp epith	s	-	-	-	-	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-
218-M-Leukemia, monuc	s	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
52-Degeneration, hyal-olf epi	s	-	-	-	-	-	-	-
93-Inflammation, mixed	s	-	-	-	-	-	-	-
195-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-
219-M-Leukemia, monuc	s	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6833F501	6833F502	6833F503	6833F504	6833F505	6833F506	6833F507	6833F508	6833F509	6833F510	6833F511	6833F512	6833F513	6833F514
Tissue/diagnosis			Death code >	U1	FS	U1	U2	FS	U2	U2	FS	U2	U2	FS	U2	FS	U2
Nose/Turbinates 4 (5)			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
313-Degeneration-olfact epith			Operator >														
168-Degeneration, hyal-olf epi			s														
94-Inflammation, mixed			s														
196-N-Carcinoma, squamous cell													2				
220-M-Leukemia, monoc																	
Preputial gland (4)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
283-Cyst, epithelial inclusion			Operator >														
66-Ectasia			s														
128-Inflammation, chronic			s														
67-Inflammation, mixed			s														
Pancreatic LN (1)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
71-N-Leukemia, monoc			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Iliac LN (2)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
282-Dilatation, sinusoidal			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
72-N-Leukemia, monoc			s														
Lymph node other (4)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
270-Dilatation, sinusoidal			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
169-Infiltration, histiocytic			s														
142-Sinus plasmacytosis			s														
75-N-Leukemia, monoc																	
Mediastinal LN (4)			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
13-Hemorrhage			Operator >														
171-Pigmentation			s														
267-N-Sarcoma, histiocytic			s														
14-N-Leukemia, monoc																	
Pituitary gland (7)			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
173-Angiectasis			Operator >														
40-Cyst			s														
172-Hemorrhage			s														
232-Inflammation, chronic			s														
42-Hyperplasia, pars dist, fcl			s														
39-B-Adenoma, pars distalis																	
138-M-Leukemia, monoc																	

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Group Sex Dosage	Animal >	6833F502	6833F503	6833F504	6833F505	6833F506	6833F507	6833F508	6833F509	6833F510	6833F511	6833F512	6833F514
2 M 2 g/m3	Animal >	6833F501	6833F503	6833F504	6833F505	6833F506	6833F507	6833F508	6833F509	6833F510	6833F511	6833F512	6833F514
Tissue/diagnosis	Death code >	U1 FS	U1 U2	U1 U2	FS U2	U2 U2	U2 U2	FS U2	U2 U2	U2 U2	FS U2	U2 U2	FS U2
Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
181-Cyst	S												
276-Mammary tissue	p												
286-Myodegeneration	s												
281-Inflammation, mixed	s												
308-B-Fibroma													
113-B-Lipoma													
200-M-Mesothelio, mal													
328-N-Sarcoma, histiocytic													
331-Splenic tissue, "accessory"	p												
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
114-N-Carcinoma, squamous cell													
Thymus (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
324-Hemorrhage	S												
137-M-Leukemia, monuc													
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
139-N-Leukemia, monuc													
Tail (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
302-Cyst, epi inclusion	p												
145-Inflammation, acute	s												
174-Inflammation, mixed	s												
175-Hyperplasia/hyperkeratosis	s												
Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
151-N-Leukemia, monuc													
Bone, other (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
269-Hyperostosis	S												
228-M-Sarcoma, NOS													
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
297-M-Carcinoma, squamous cell													

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Group	Sex	Dosage	Animal >	6833F502	6833F504	6833F506	6833F508	6833F510	6833F512	6833F514
2	M	2 g/m3	Animal >	6833F501	6833F503	6833F505	6833F507	6833F509	6833F511	6833F513
		Tissue/diagnosis	Death code >	U1	U1	FS	U2	U2	FS	FS
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >							
		311-M-Mesothelio, mal	S							
						142				
						4=				
						-				



Group Sex Dosage	Animal >	6833F517	6833F519	6833F521	6833F523	6833F525	6833F527	6833F529
2 M 2 g/m3	Animal >	6833F516	6833F518	6833F520	6833F522	6833F524	6833F526	6833F528
Tissue/diagnosis	Death code >	FS U2	FS U2	FS U2	FS U2	FS U1	FS U2	FS U2
Parathyroid (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	m	m					m
235-Hyperplasia, diffuse	S	-	-	-	-	-	-	-
203-Hyperplasia, focal	S	-	-	-	-	-	-	-
Aorta (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
132-N-Leukemia,monuc - inv invol	P	-	-	-	-	-	-	-
325-Dilatation	Status >	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142
Esophagus	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
Larynx (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
95-Ulceration	S	-	-	-	-	-	-	-
18-Inflammation, mixed	S	1	3	2	2	1	2	2
19-Inflammation, chronic	S	-	-	-	-	-	-	-
16-Metaplasia, squamous	S	-	-	-	-	-	-	-
15-Hyperplasia, epithelial	S	-	2	2	-	-	2	-
Salivary gland (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
225-Degen	S	-	-	-	-	-	-	-
236-Inflammation, acute	S	-	-	-	-	-	-	-
20-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Mandibular LN (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
126-Hemorrhage	S	-	-	-	-	-	-	-
118-Sinus plasmacytosis	S	-	-	-	-	-	-	-
60-Hyperplasia, lymphoid	S	-	-	-	-	-	-	-
21-N-Leukemia, monuc	S	1	-	-	-	-	-	-
Liver (17)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
26-Angiectasis	S	-	-	-	-	-	-	-
160-Congestion	S	-	-	-	-	-	-	-
272-Cyst	S	-	-	-	-	-	-	-
99-Fatty Change	S	-	-	-	-	-	-	-
158-Foci cell alter, basophilic	S	-	-	-	-	-	-	2
123-Hdn	P	-	-	-	-	-	-	-
22-Necrosis	S	-	-	-	-	-	-	-
231-Thrombus	S	-	-	-	-	-	-	-
23-Vacuololiz, cyto	S	-	-	-	-	-	-	-
29-Inflammation, chronic	S	-	-	-	-	-	-	-
27-Hyperplasia, biliary	S	3	2	3	2	2	2	1
28-Hyperplasia, hepato, regen	S	-	-	-	-	-	-	-
122-B-Adenoma, hepatocellular	S	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6833F517	6833F519	6833F521	6833F523	6833F525	6833F527	6833F529
2 M 2 g/m3	Animal >	6833F516	6833F518	6833F520	6833F522	6833F524	6833F526	6833F528
Tissue/diagnosis	Death code >	FS	U2	FS	U2	FS	FS	U2
		142	142	142	142	142	142	142
	Status >							
Liver (17)	Operator >							
150-M-Carcinoma, hepatocellular		142	142	142	142	142	142	142
246-M-Sarcoma, histiocytic		-	-	-	-	-	-	-
310-M-Sarcoma, undifferentiated		-	-	-	-	-	-	-
24-M-Leukemia, monuc		2=	1=	2=	2	-	1=	2
	Status >							
Spleen (7)	Operator >	142	142	142	142	142	142	142
285-Congestion	s	-	-	-	-	-	-	-
63-Fibrosis	s	-	-	-	-	-	-	-
247-Hemorrhage	s	2	-	-	-	-	-	-
129-Necrosis	s	-	-	3=	-	-	-	2
201-M-Fibrosarc		-	-	-	-	-	-	-
30-M-Leukemia, monuc		2=	2=	2=	2=	1=	2=	2=
326-N-Sarcoma, histiocytic		-	-	-	-	-	-	-
	Status >							
Kidneys (9)	Operator >	142	142	142	142	142	142	142
161-Cyst	s	-	-	-	-	-	-	1
248-Degen, hyaline droplet	s	-	-	-	-	-	-	-
251-Infarct	s	-	-	-	-	-	-	-
33-Nephropathy, chronic	s	2	1	3=	2	4	2	1
130-Pigment, tubular epithelium	s	3	2	3	2	4	4	2=
274-Inflammation, acute	s	-	-	-	-	-	-	-
213-B-Adenoma, renal tubule		-	-	-	-	-	-	-
191-M-Carcinoma, renal tubule		-	-	-	-	-	-	-
68-M-Leukemia, monuc		-	-	-	-	-	-	-
	Status >							
Heart (6)	Operator >	142	142	142	142	142	142	142
96-Degen, myocyte	s	-	-	-	-	-	-	-
116-Fibrosis	s	1	1	-	1	-	-	3=
206-Thrombus	s	-	-	-	-	-	-	-
279-Inflammation, acute	s	-	-	-	-	-	-	-
34-Inflammation, focal, chronic	s	-	-	1	1	-	1	1
35-M-Leukemia, monuc		1	-	-	-	-	-	-
	Status >							
Stomach (2)	Operator >	142	142	142	142	142	142	142
101-Inflammation, mixed	s	-	-	-	-	-	-	-
100-Hyperplasia, sq epi	s	-	-	-	-	-	-	-
	Status >							
Cecum (1)	Operator >	142	142	142	142	142	142	142
69-N-Leukemia, monuc		-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6833F517	6833F519	6833F521	6833F523	6833F525	6833F527	6833F529
2 M 2 g/m3	Animal >	6833F516	6833F518	6833F520	6833F522	6833F524	6833F526	6833F528
Tissue/diagnosis	Death code >	FS	U2	FS	U2	FS	FS	U2
Urinary bladder (5)	Status >	*H						
178-Hemorrhage	Operator >	142	142	142	142	142	142	142
193-Inflammation, mixed	s	-	-	-	-	-	-	-
37-Inflammation, chronic	s	-	-	-	-	-	-	-
61-B-Papilloma, transitional		-	-	-	-	-	-	-
134-M-Leukemia, monuc	1	-	1	-	-	-	-	-
Duodenum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Jejunum (1)	Status >							
80-M-Adenocarcinoma	Operator >	142	142	142	142	142	142	142
Ileum (3)	Status >							
78-Hyperplasia, lymphoid	Operator >	142	142	142	142	142	142	142
81-B-Fibroma	s	-	-	-	-	-	-	-
207-N-Leukemia, monuc		-	-	-	-	-	-	-
Colon (2)	Status >							
197-Inflammation, mixed	Operator >	142	142	142	142	142	142	142
156-B-Leiomyoma	s	-	-	-	-	-	-	-
Pancreas (2)	Status >							
323-M-Carcinoma, ductal cell	Operator >	142	142	142	142	142	142	142
135-M-Leukemia, monuc		-	-	-	-	-	-	-
Rectum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Adrenal glands (10)	Status >							
164-Cyst	Operator >	142	142	142	142	142	142	142
62-Degen, cytopl vacuol	s	-	-	-	-	-	-	-
194-Necrosis	s	-	-	-	-	-	-	-
108-Thrombus	s	-	-	-	-	-	-	-
277-Hyperplasia, cort, diffuse	s	-	-	-	-	-	-	-
38-Hyperplasia, medulla, focal	p	-	-	-	-	-	-	-
77-B-Pheochrom, bgn		-	-	-	-	-	-	-
305-B-Pheochro, complex, benign	1=	-	-	-	-	-	-	-
74-M-Pheochromocytoma, malig	s	-	-	-	-	-	-	-
57-M-Leukemia, monuc		-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6833F517	6833F519	6833F521	6833F523	6833F525	6833F527	6833F529
2 M 2 g/m3	Animal >	6833F516	6833F518	6833F520	6833F522	6833F524	6833F526	6833F528
Tissue/diagnosis	Death code >	FS	U2	FS	U2	FS	FS	U2
Prostate (6)	Status >							
Operator >		142	142	142	142	142	142	142
143-Atrophy	S	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	-	-	-	-
88-Inflammation, acute	S	-	-	-	-	-	-	-
64-Inflammation, mixed	S	-	-	3	2	-	-	-
Epididymis (4)	Status >							
Operator >		142	142	142	142	142	142	142
119-Atrophy	S	-	-	-	-	-	-	-
242-Granuloma, sperm	S	-	-	-	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	-	-	-
198-M-Mesothelio, mal	S	-	-	-	-	-	-	-
Seminal vesicle (4)	Status >							
Operator >		142	142	142	142	142	142	142
120-Atrophy	S	3=	-	-	-	-	2=	-
182-Dilatation	S	-	-	-	-	-	-	-
307-Hyperplasia	S	-	-	-	-	-	-	-
136-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >							
Operator >		142	142	142	142	142	142	142
147-Hemorrhage	S	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
43-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Testes (5)	Status >							
Operator >		142	142	142	142	142	142	142
152-Atrophy	S	-	-	-	-	-	-	-
287-Hemorrhage	S	-	-	-	-	-	-	-
105-Hyperplasia, interst cell	P	1=	1=	1=	1=	1=	1=	1=
54-B-Adenoma, interstitial	P	-	-	-	-	-	-	-
199-M-Mesothelioma, malig	P	-	-	-	-	-	-	-
Sciatic nerve (1)	Status >							
Operator >		142	142	142	142	142	142	142
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Muscle, skeletal (3)	Status >							
Operator >		142	142	142	142	142	142	142
304-Inflammation, chronic	S	-	-	-	-	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6833F517	6833F519	6833F521	6833F523	6833F525	6833F527	6833F529
2 M 2 g/m3	Animal >	6833F516	6833F518	6833F520	6833F522	6833F524	6833F526	6833F528
Tissue/diagnosis	Death code >	FS U2	FS U2	FS U2	FS U2	FS U1	FS U2	FS U2
Mammary gland (6)	Status >	142	142	142	142	142	142	142
	Operator >							*H
284-Cyst	P	-	-	-	-	-	-	-
166-Ectasia	S	-	-	-	-	-	-	-
155-Hyperplasia, lobular	S	-	-	2	-	-	-	-
165-B-Fibroadenoma		-	-	-	-	-	-	-
55-B-Fibroma		-	-	-	-	-	-	1=
266-N-Sarcoma, histiocytic		-	1	-	-	-	-	-
Skin (13)	Status >	142	142	142	142	142	142	142
	Operator >							
229-Cyst, epith inc	P	-	-	-	-	-	-	-
140-Fibrosis	S	-	-	3=	-	-	-	-
221-Hyperkeratosis	S	-	-	3	-	-	-	-
241-Necrosis	S	-	4=	-	-	-	-	-
237-Inflammation, mixed	S	-	-	3	-	-	-	-
148-Inflammation, chronic	S	-	-	-	-	-	-	-
149-B-Fibroma		-	-	-	-	-	-	-
176-B-Keratoacanthoma		-	-	-	-	-	-	-
223-B-Tumor, basal cell, benign		-	-	-	-	-	-	-
309-B-Tumor, hair follicle, ben		-	-	-	-	-	-	-
300-M-Carcinoma, sebaceous cell		-	-	-	-	-	-	-
303-M-Sarcoma, undifferentiated		-	-	-	-	-	-	-
327-N-Sarcoma, histiocytic		-	1=	-	-	-	-	-
Brain (10)	Status >	142	142	142	142	142	142	142
	Operator >							
44-Compression	S	-	-	-	-	-	-	-
103-Ectasia, ventricular sys	S	-	-	-	-	-	-	-
226-Edema	S	-	-	-	-	-	-	-
189-Gliosis	S	-	-	-	-	-	-	-
183-Hemorrhage	S	-	-	-	-	-	-	-
192-Mineralization	S	-	-	-	-	-	-	-
45-Necrosis	S	-	-	-	-	-	-	-
275-Inflammation, acute	S	-	-	-	-	-	-	-
190-Inflammation, chronic	S	-	-	-	-	-	-	-
224-M-Astrocytoma, malignant		-	2=	-	-	-	-	-
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
	Operator >							
89-Atrophy	S	-	-	-	-	-	-	-
110-Atrophy, retinal, unilat	S	-	-	-	-	-	-	-
111-Cataract	P	-	-	-	-	-	-	-
90-Degen	S	-	-	-	-	-	-	-
144-Metaplasia, osseous, sclera	S	-	-	-	-	-	-	-
46-Mineralization, corneal str	S	-	-	-	-	-	-	-
59-Mineralization, scleral	S	-	-	-	1	-	-	-
121-Neovascularization, corneal	S	-	-	-	-	-	-	-
180-Inflammation, acute	S	-	-	-	-	-	-	-

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Group Sex Dosage	6833F516	6833F517	6833F519	6833F521	6833F523	6833F525	6833F527	6833F529
2 M 2 g/m3	6833F518	6833F520	6833F522	6833F524	6833F526	6833F528	6833F530	6833F532
Tissue/diagnosis	FS U2	FS U2	FS U2	FS U1	FS U2	FS U2	FS U2	FS U2
Eyes/optic nerve (12)								
127-Inflammation, mixed	142	142	142	142	142	142	142	142
278-Inflammation, chronic	-	-	-	-	-	-	-	-
216-M-Leukemia, monuc	-	-	-	-	-	-	-	-
Bone, femur (2)								
209-New bone, endosteal	142	142	142	142	142	142	142	142
212-Inflammation, acute	-	-	-	-	-	-	-	-
Spinal cord (3)								
48-Degen, white matter	142	142	142	142	142	142	142	142
184-Hemorrhage	-	-	-	-	-	-	-	-
280-Inflammation, acute	-	-	-	-	-	-	-	-
Nose/Turbinates 1 (9)								
261-Degeneration-resp epith	142	142	142	142	142	142	142	142
222-Degeneration,hyal-Resp Epith s	-	-	-	-	-	-	-	-
106-Metaplasia, squ-resp epith s	-	-	-	3	-	-	-	-
124-Metaplasia, squ-trans epith s	-	-	-	-	-	-	-	-
91-Inflammation, mixed	-	-	-	4	-	-	-	-
49-Inflammation-nasolac duct	-	-	-	3	-	-	3	-
107-Inflammation-resp epith	-	-	-	-	-	-	-	-
186-Hyperplasia-resp epith	-	-	-	-	-	-	-	-
217-M-Leukemia, monuc	-	-	-	-	-	-	-	-
Nose/Turbinates 2 (11)								
98-Degeneration-olfact epith	142	142	142	142	142	142	142	142
51-Degeneration,hyaline-olf epi s	-	-	-	-	-	-	-	-
262-Degeneration-resp epith s	2	-	-	-	-	-	-	-
202-Degeneration, hyal-resp epith s	-	-	-	-	-	-	-	-
210-Metaplasia, sec-olfact epith s	-	-	-	-	-	-	-	-
292-Metaplasia, squ-olfact epith s	-	-	-	-	-	-	-	-
312-Metaplasia, squ-resp epith s	-	-	-	-	-	-	-	-
92-Inflammation, mixed	2	2	-	-	-	-	-	-
227-Hyperplasia-resp epith	2	-	-	-	-	-	-	-
112-M-Carcinoma, squamous cell	-	-	-	-	-	-	-	-
218-M-Leukemia, monuc	-	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)								
52-Degeneration, hyal-olf epi s	142	142	142	142	142	142	142	142
93-Inflammation, mixed	-	-	-	-	-	-	-	-
195-M-Carcinoma, squamous cell	-	-	-	-	-	-	-	-
219-M-Leukemia, monuc	-	-	-	-	-	-	-	-

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Lovelace Respiratory  
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Group Sex Dosage	Animal >	6833F517	6833F519	6833F520	6833F521	6833F523	6833F525	6833F527	6833F529
2 M 2 g/m3	Animal >	6833F516	6833F518	6833F520	6833F521	6833F522	6833F524	6833F526	6833F528
Tissue/diagnosis	Death code >	FS U2	FS U2	FS U2	FS U2	FS U2	FS U1	FS U2	FS U2
Nose/Turbinates 4 (5)	Status >	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-
313-Degeneration-olfact epith s	s	-	-	-	-	-	-	-	-
168-Degeneration, hyal-olf epi s	s	-	-	-	-	-	-	-	-
94-Inflammation, mixed s	s	-	-	-	-	-	-	-	-
196-N-Carcinoma, squamous cell		-	-	-	-	-	-	-	-
220-M-Leukemia, monuc		-	-	-	-	-	-	-	-
Preputial gland (4)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >	-	-	-	-	-	-	-	-
283-Cyst, epithelial inclusion p	p	-	-	-	-	-	-	-	-
66-Ectasia s	s	-	-	-	-	-	-	-	-
128-Inflammation, chronic s	s	-	-	-	-	-	-	-	-
67-Inflammation, mixed s	s	-	-	-	-	-	-	-	-
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >	-	-	-	-	-	-	-	-
71-N-Leukemia, monuc		-	-	-	-	-	-	-	-
Iliac LN (2)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >	-	-	-	-	-	-	-	-
282-Dilatation, sinusoidal s	s	-	-	-	-	-	-	-	-
72-N-Leukemia, monuc		-	-	-	-	-	-	-	-
Lymph node other (4)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >	-	-	-	-	-	-	-	-
270-Dilatation, sinusoidal s	s	-	-	-	-	-	-	-	-
169-Infiltration, histiocytic s	s	-	-	-	-	-	-	-	-
142-Sinus plasmacytosis s	s	-	-	-	-	-	-	-	-
75-N-Leukemia, monuc		-	-	-	-	-	-	-	-
Mediastinal LN (4)	Status >	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-
13-Hemorrhage s	s	-	-	-	-	-	-	-	-
171-Pigmentation s	s	-	-	-	-	-	-	-	-
267-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-
14-N-Leukemia, monuc		-	1	-	-	-	-	-	-
Pituitary gland (7)	Status >	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-
173-Angiectasis s	s	-	-	-	-	-	-	-	-
40-Cyst s	s	-	1	-	-	-	-	-	-
172-Hemorrhage s	s	-	-	-	-	-	-	-	-
232-Inflammation, chronic s	s	-	-	-	-	-	-	-	-
42-Hyperplasia, pars dist, fcl s	s	1	-	-	-	-	-	-	-
39-B-Adenoma, pars distalis		1	-	1	-	-	-	-	1
138-M-Leukemia, monuc		-	-	-	-	-	-	-	-

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Lovelace Respiratory  
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Rat/F344/N

Group	Sex	Dosage	Animal >	6833F517	6833F519	6833F520	6833F521	6833F522	6833F523	6833F524	6833F525	6833F526	6833F527	6833F528	6833F529
2	M	2 g/m3	Animal >	6833F516	6833F518	6833F520	6833F521	6833F522	6833F523	6833F524	6833F525	6833F526	6833F527	6833F528	6833F529
		Tissue/diagnosis	Death code >	FS	U2	FS	U2	FS	FS	U1	FS	FS	U2	U2	U2
		Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		181-Cyst	S												
		276-Mammary tissue	p												
		286-Myodegeneration	s												
		281-Inflammation, mixed	s												
		308-B-Fibroma													
		113-B-Lipoma													
		200-M-Mesothelio, mal													
		328-N-Sarcoma, histiocytic													
		331-Splenic tissue, "accessory"	p												
		Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		114-N-Carcinoma, squamous cell													
		Thymus (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		324-Hemorrhage	S												
		137-M-Leukemia, monoc													
		Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		139-N-Leukemia, monoc													
		Tail (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		302-Cyst, epi inclusion	p												
		145-Inflammation, acute	s												
		174-Inflammation, mixed	s												
		175-Hyperplasia/hyperkeratosis	s												
		Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		151-N-Leukemia, monoc													
		Bone, other (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		269-Hyperostosis	S												
		228-M-Sarcoma, NOS													
		Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		297-M-Carcinoma, squamous cell													

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Lovelace Respiratory  
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Group	Sex	Dosage	Animal >	6833F517	6833F519	6833F521	6833F523	6833F525	6833F527	6833F529
2	M	2 g/m3	Animal >	6833F518	6833F520	6833F522	6833F524	6833F526	6833F528	6833F530
		Tissue/diagnosis	Death code >	U2	FS	U2	FS	FS	U2	U2
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		Operator >	S							

301-Inflammation, mixed  
311-M-Mesothelio, mal

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Lovelace Respiratory  
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Group Sex Dosage	Animal >	6833F532	6833F534	6833F536	6833F538	6833F540	6833F542	6833F544
2 M 2 g/m3	Animal >	6833F531	6833F533	6833F535	6833F537	6833F539	6833F541	6833F543
Tissue/diagnosis	Death code >	U2	U2	FS	U2	U2	U1	FS
Lungs (17)	Status >	142	142	142	142	142	142	142
Operator >		1	-	-	-	1	-	-
4-Alveolar histiocytosis	s	-	-	-	-	-	-	-
299-Autolysis, marked	p	-	-	-	-	-	-	-
3-Congestion	s	-	-	-	-	-	2=	-
82-Fibrosis, focal	s	-	-	-	-	-	-	-
154-Hemorrhage	s	-	-	2=	-	-	-	3=
306-Metaplasia, squam - alv epi	s	-	-	3=	-	-	-	2=
233-Mineralization, uremic	s	-	-	-	-	-	-	-
298-Cyst, squamous, keratiniz	p	-	-	-	-	-	-	-
187-Inflammation, acute	s	-	-	-	-	-	-	-
84-Inflammation, mixed	s	-	-	-	-	-	-	-
214-Inflammation, granulomatous	s	-	-	-	-	-	-	-
1-Hyperplasia, alv epi, focal	s	-	-	1	2	-	-	-
5-Hyperplasia, alv epi, wdsprd	s	-	-	-	-	-	-	-
104-B-Adenoma, bronchiolo-alv	s	-	-	-	-	-	-	-
240-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
2-N-Leukemia, monuc - cap invol	s	-	2	1	2	2	-	2=
131-N-Leukemia, monuc - inv invol	s	-	2	-	-	-	-	-
Trachea (6)	Status >	142	142	142	142	142	142	142
Operator >		-	-	-	-	-	-	H
188-Metaplasia, squamous	s	-	-	-	-	-	-	-
7-Inflammation, acute	s	-	-	-	-	-	-	-
85-Inflammation, mixed	s	-	-	-	-	-	-	-
177-Inflammation, chronic	s	-	-	-	1	-	2	-
86-Hyperplasia, epithelial	s	-	-	-	-	-	-	-
215-N-Leukemia, mononuclear	s	-	-	-	-	-	-	-
Bronchial (TBLN) (3)	Status >	142	142	142	142	142	142	142
Operator >		-	-	142	142	142	142	142
8-Hemorrhage	s	-	-	2=	-	-	-	-
243-N-Sarcoma, histiocytic	s	-	-	-	-	-	1	-
9-N-Leukemia, monuc	s	-	1=	-	1	-	-	1
Thyroid glands (7)	Status >	142	142	142	142	142	142	142
Operator >		-	-	142	142	142	142	142
115-Cyst, follicular	p	-	-	-	m	-	-	-
73-Hyperplasia, C-cell, focal	s	-	-	-	-	-	-	-
153-Hyperplasia, follicular cell	s	-	-	-	1	-	-	-
10-B-Adenoma, C-cell	s	-	-	-	-	-	-	1=
87-B-Adenoma, follicular cell	s	-	-	-	-	-	-	-
204-M-Carcinoma, C-cell	s	-	-	-	-	-	-	-
125-M-Carcinoma, follicular cell	s	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6833F532	6833F533	6833F534	6833F535	6833F536	6833F537	6833F538	6833F539	6833F540	6833F541	6833F542	6833F543	6833F544
2 M 2 g/m3	Animal >	6833F531	6833F533	6833F534	6833F535	6833F536	6833F537	6833F538	6833F539	6833F540	6833F541	6833F542	6833F543	6833F544
Tissue/diagnosis	Death code >	U2	U2	U2	FS	FS	U2	U2	U2	U2	U1	FS	U2	U2
Parathyroid (2)	Status >	mH	m	m	m	m	m	m	m	m	m	mH		
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
235-Hyperplasia, diffuse	s													
203-Hyperplasia, focal	s													
Aorta (2)	Status >													
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
132-N-Leukemia,monuc - inv invol	p													
325-Dilatation														
Esophagus	Status >	U	U	U	U	U	U	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Larynx (5)	Status >													
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
95-Ulceration	s													
18-Inflammation, mixed	s		2	1	2			2	1		1		2	1
19-Inflammation, chronic	s													
16-Metaplasia, squamous	s		2		1									
15-Hyperplasia, epithelial	s							1						
Salivary gland (3)	Status >													
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
225-Degen	s													
236-Inflammation, acute	s													
20-M-Leukemia, monuc														
Mandibular LN (4)	Status >													
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
126-Hemorrhage	s													
118-Sinus plasmacytosis	s													
60-Hyperplasia, lymphoid	s													
21-N-Leukemia, monuc		1		1			1			1				1
Liver (17)	Status >													
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
26-Angiectasis	s													
160-Congestion	s				1									
272-Cyst	s													
99-Fatty Change	s													
158-Foci cell alter, basophilic	s													
123-Hdn	p													
22-Necrosis	s													
231-Thrombus	s													
23-Vacuoliz, cyto	s									2				
29-Inflammation, chronic	s													
27-Hyperplasia, biliary	s													
28-Hyperplasia, hepato, regen	s	2	2	3	2	4	3	2	2	3	2	3	2	2
122-B-Adenoma, hepatocellular	s													2=

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Group Sex Dosage	Animal >	6833F532	6833F533	6833F534	6833F535	6833F536	6833F537	6833F538	6833F539	6833F540	6833F541	6833F542	6833F543	6833F544
2 M 2 g/m3	Animal >	6833F531	6833F532	6833F533	6833F534	6833F535	6833F536	6833F537	6833F539	6833F540	6833F541	6833F542	6833F543	6833F544
Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	FS	U2	U2	U2	U1	FS	U2	U2
Liver (17)	Status >													
150-M-Carcinoma, hepatocellular	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
246-M-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-
310-M-Sarcoma, undifferentiated		-	-	-	-	-	-	-	-	-	-	-	1=	-
24-M-Leukemia, monuc		-	2	2=	2=	1=	2=	2=	-	2	1=	-	-	2=
Spleen (7)	Status >													
285-Congestion	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
63-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-
247-Hemorrhage	s	-	-	-	-	-	-	3=	-	-	-	-	-	-
129-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-
201-M-Fibrosarc		-	-	-	-	-	-	-	-	-	-	-	-	-
30-M-Leukemia, monuc		-	2=	2=	1	1=	2=	2=	-	2=	1	-	2=	2=
326-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-
Kidneys (9)	Status >													
161-Cyst	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
248-Degen, hyaline droplet	s	-	-	-	-	-	-	-	-	-	-	-	-	-
251-Infarct	s	-	-	-	-	-	-	-	-	-	-	-	4=	-
33-Nephropathy, chronic	s	2	1	2	2	3	3	2	3	-	2	2	1	2
130-Pigment, tubular epithelium	s	-	-	-	-	-	-	-	-	3=	-	-	-	-
274-Inflammation, acute	s	-	-	-	-	-	-	-	1	-	-	-	-	-
213-B-Adenoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-
191-M-Carcinoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-
68-M-Leukemia, monuc		-	1	1	1	-	-	-	-	-	-	-	-	-
Heart (6)	Status >													
96-Degen, myocyte	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
116-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-
206-Thrombus	s	-	-	-	-	-	-	2	-	-	3=	-	-	-
279-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-
34-Inflammation, focal, chronic	s	1	-	-	-	-	-	-	-	-	-	-	-	1
35-M-Leukemia, monuc		-	1	-	-	2	-	-	-	-	-	-	-	-
Stomach (2)	Status >													
101-Inflammation, mixed	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
100-Hyperplasia, sq epi	s	-	-	-	-	-	-	2	-	-	-	-	-	-
Cecum (1)	Status >													
69-N-Leukemia, monuc	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142

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Group Sex Dosage	Animal >	6833F532	6833F534	6833F536	6833F538	6833F540	6833F542	6833F544
2 M 2 g/m3	Animal >	6833F531	6833F533	6833F535	6833F537	6833F539	6833F541	6833F543
Tissue/diagnosis	Death code >	U2	U2	FS	U2	U2	U1	FS
Urinary bladder (5)	Status >	142	142	142	142	142	142	142
178-Hemorrhage	Operator >	-	-	-	-	-	-	-
193-Inflammation, mixed	s	-	-	-	-	-	-	-
37-Inflammation, chronic	s	-	-	-	-	-	-	-
61-B-Papilloma, transitional		-	-	-	-	-	-	-
134-M-Leukemia, monuc		-	-	-	-	-	-	-
Duodenum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Jejunum (1)	Status >	142	142	142	142	142	142	142
80-M-Adenocarcinoma	Operator >	-	-	-	-	-	-	-
Ileum (3)	Status >	142	142	142	142	142	142	142
78-Hyperplasia, lymphoid	Operator >	-	-	-	-	-	-	-
81-B-Fibroma	s	-	-	-	-	-	-	-
207-N-Leukemia, monuc		-	-	-	-	-	-	-
Colon (2)	Status >	142	142	142	142	142	142	142
197-Inflammation, mixed	Operator >	-	-	-	-	-	-	-
156-B-Leiomyoma	s	-	-	-	-	-	-	-
Pancreas (2)	Status >	142	142	142	142	142	142	142
323-M-Carcinoma, ductal cell	Operator >	-	-	-	-	-	-	-
135-M-Leukemia, monuc		-	-	-	-	-	-	-
Rectum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Adrenal glands (10)	Status >	142	142	142	142	142	142	142
164-Cyst	Operator >	-	-	-	-	-	-	-
62-Degen, cytopl vacuol	s	-	-	-	-	-	-	-
194-Necrosis	s	-	3	-	-	-	-	-
108-Thrombus	s	-	-	-	2	-	-	3
277-Hyperplasia, cort, diffuse	s	-	-	-	-	-	-	-
38-Hyperplasia, medulla, focal	p	-	-	-	-	-	-	-
77-B-Pheochrom, bgn		-	-	-	-	-	-	-
305-B-Pheochro, complex, benign		-	-	-	-	-	-	-
74-M-Pheochromocytoma, malig		-	-	-	-	-	-	-
57-M-Leukemia, monuc		-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6833F532	6833F534	6833F536	6833F538	6833F540	6833F542	6833F544
2 M 2 g/m3	Animal >	6833F531	6833F533	6833F535	6833F537	6833F539	6833F541	6833F543
Tissue/diagnosis	Death code >	U2	U2	FS	U2	U2	U1	U2
Prostate (6)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
143-Atrophy	S	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	-	-	-	-
88-Inflammation, acute	S	-	-	-	-	3	-	-
64-Inflammation, mixed	S	3	1	-	2	2	-	2
Epididymis (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	1=	-	-	2=	-	-	-
119-Atrophy	S	-	-	-	-	-	-	-
242-Granuloma, sperm	S	-	-	2	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	-	-	-
198-M-Mesothelio, mal	S	-	-	-	-	-	-	-
Seminal vesicle (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
120-Atrophy	S	-	-	-	-	-	-	-
182-Dilatation	S	-	-	2=	-	-	-	-
307-Hyperplasia	S	-	-	3	-	-	-	-
136-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
147-Hemorrhage	S	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	1=	-
43-N-Leukemia, monuc	S	-	1	-	-	-	-	-
Testes (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	4=	-	-	4=	-	-	-
152-Atrophy	S	-	-	-	-	-	-	-
287-Hemorrhage	S	-	-	-	-	-	-	-
105-Hyperplasia, interst cell	P	-	-	-	P	-	-	-
54-B-Adenoma, interstitial	P	1=	1=	1=	1=	1=	1=	1=
199-M-Mesothelioma, malig	P	-	-	-	-	-	-	-
Sciatic nerve (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Muscle, skeletal (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
304-Inflammation, chronic	S	-	-	-	-	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	-	-	-	-	-	1=	-

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Group Sex Dosage	Animal >	6833F532	6833F534	6833F536	6833F538	6833F540	6833F542	6833F544
2 M 2 g/m3	Animal >	6833F531	6833F533	6833F535	6833F537	6833F539	6833F541	6833F543
Tissue/diagnosis	Death code >	U2	U2	FS	U2	U2	U1	U2
Mammary gland (6)	Status >	142	142	142	142	142	142	142
	Operator >							
284-Cyst	p							
166-Ectasia	s							
155-Hyperplasia, lobular	s							
165-B-Fibroadenoma								
55-B-Fibroma								
266-N-Sarcoma, histiocytic								1=
Skin (13)	Status >	142	142	142	142	142	142	142
	Operator >							
229-Cyst, epith inc	p							
140-Fibrosis	s							
221-Hyperkeratosis	s							
241-Necrosis	s							
237-Inflammation, mixed	s							
148-Inflammation, chronic	s							
149-B-Fibroma								
176-B-Keratoacanthoma								
223-B-Tumor, basal cell, benign								
309-B-Tumor, hair follicle, ben								
300-M-Carcinoma, sebaceous cell								
303-M-Sarcoma, undifferentiated								
327-N-Sarcoma, histiocytic								1=
Brain (10)	Status >	142	142	142	142	142	142	142
	Operator >							
44-Compression	s							
103-Ectasia, ventricular sys	s							
226-Edema	s							
189-Gliosis	s							
183-Hemorrhage	s							
192-Mineralization	s							
45-Necrosis	s							
275-Inflammation, acute	s							
190-Inflammation, chronic	s							
224-M-Astrocytoma, malignant								
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
	Operator >							
89-Atrophy	s							
110-Atrophy, retinal, unilat	s							
111-Cataract	p							
90-Degen	s							
144-Metaplasia, osseous, sclera	s							
46-Mineralization, corneal str	s							
59-Mineralization, scleral	s							
121-Neovascularization, corneal	s							
180-Inflammation, acute	s							

Group Sex Dosage	Animal >	6833F532	6833F533	6833F534	6833F536	6833F538	6833F540	6833F542	6833F544
2 M 2 g/m3	Animal >	6833F531	6833F533	6833F534	6833F535	6833F537	6833F539	6833F541	6833F543
Tissue/diagnosis	Death code >	U2	U2	U2	FS	U2	U2	U1	FS
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142	142
127-Inflammation, mixed	Operator >	-	-	-	-	-	-	-	-
278-Inflammation, chronic	s	-	-	-	-	4=	-	-	-
216-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-
Bone, femur (2)	Status >	142	142	142	142	142	142	142	142
209-New bone, endosteal	Operator >	-	-	-	-	-	-	-	-
212-Inflammation, acute	s	-	-	4	-	-	-	-	-
s	s	-	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142	142
48-Degen, white matter	Operator >	-	-	-	-	-	-	-	-
184-Hemorrhage	s	-	-	-	-	-	-	-	-
280-Inflammation, acute	s	-	-	-	-	-	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142	142
261-Degeneration-resp epith	Operator >	-	-	-	-	-	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	1	-	-	-	-	-	-
106-Metaplasia, squ-resp epith	s	2	-	3	-	-	-	-	-
124-Metaplasia, squ-trans epith	s	-	-	-	-	-	-	-	-
91-Inflammation, mixed	s	2	-	-	-	1	-	1	-
49-Inflammation-nasolac duct	s	3	-	-	-	2	-	2	-
107-Inflammation-resp epith	s	-	-	-	-	-	-	-	-
186-Hyperplasia-resp epith	s	-	-	-	-	-	-	-	-
217-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142	142
98-Degeneration-olfact epith	Operator >	-	-	-	-	-	-	-	-
51-Degeneration,hyaline-olf epi	s	1	1	-	-	-	-	-	-
262-Degeneration-resp epith	s	-	-	3	-	-	-	-	-
202-Degeneration, hyal-resp epith	s	-	-	-	-	-	-	-	-
210-Metaplasia, sec-olfact epith	s	3	-	-	-	-	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-	-	-	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-	1
92-Inflammation, mixed	s	3	-	-	-	-	2	-	1
227-Hyperplasia-resp epith	s	-	-	1	-	-	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-	-
218-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142	142
52-Degeneration, hyal-olf epi	Operator >	-	-	2	-	-	-	-	-
93-Inflammation, mixed	s	-	-	-	-	-	-	-	1
195-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-	2
219-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-

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2 M 2 g/m3	Animal >	6833F531	6833F533	6833F534	6833F536	6833F537	6833F538	6833F539	6833F540	6833F541	6833F542	6833F543	6833F544	6833F545
Tissue/diagnosis	Death code >	U2	U2	U2	FS	U2	U2	U2	U2	U1	FS	U2	U2	U2
Nose/Turbinates 4 (5)	Status >					a	H							
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142
313-Degeneration-olfact epith s		-	-	-	-	-	-	-	-	-	-	-	-	-
168-Degeneration, hyal-olf epi s		-	-	-	-	-	-	-	-	-	-	-	-	-
94-Inflammation, mixed s		-	-	-	-	-	-	-	-	-	-	-	-	-
196-N-Carcinoma, squamous cell		-	-	-	-	-	-	2	-	-	-	-	-	-
220-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-
Preputial gland (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >														
283-Cyst, epithelial inclusion p														
66-Ectasia s														
128-Inflammation, chronic s														
67-Inflammation, mixed s														
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >			142											
71-N-Leukemia, monuc			1=											
Iliac LN (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >														
282-Dilatation, sinusoidal s														
72-N-Leukemia, monuc														
Lymph node other (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >		142												
270-Dilatation, sinusoidal s		4=												
169-Infiltration, histiocytic s		-	-	-	-	-	-	-	-	-	-	-	-	-
142-Sinus plasmacytosis s		-	-	-	-	-	-	-	-	-	-	-	-	-
75-N-Leukemia, monuc		-	1	1	1	1	1	1	1	1	1	1	1	1
Mediastinal LN (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
13-Hemorrhage s		-	-	-	-	-	-	-	-	-	-	-	-	-
171-Pigmentation s		-	-	-	-	-	-	-	-	-	-	-	-	-
267-N-Sarcoma, histiocytic s		-	-	-	-	-	-	-	-	-	-	-	-	-
14-N-Leukemia, monuc		-	1	1	1	1	1	1	1	1	1	1	1	1
Pituitary gland (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
173-Angiectasis s		-	-	-	-	-	-	-	-	-	-	-	-	-
40-Cyst s		-	-	2	-	-	-	-	-	-	-	-	-	-
172-Hemorrhage s		-	-	-	-	-	-	-	-	-	-	-	-	-
232-Inflammation, chronic s		-	-	-	-	-	-	-	-	-	-	-	-	-
42-Hyperplasia, pars dist, fcl s		-	-	-	-	-	-	-	-	-	-	-	-	-
39-B-Adenoma, pars distalis		1=	-	-	-	-	-	-	-	-	-	-	-	-
138-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6833F532	6833F533	6833F534	6833F535	6833F536	6833F537	6833F538	6833F539	6833F540	6833F541	6833F542	6833F543	6833F544	6833F545	
2 M 2 g/m3	Animal >	6833F531	6833F533	6833F534	6833F535	6833F536	6833F537	6833F538	6833F539	6833F540	6833F541	6833F542	6833F543	6833F544	6833F545	
Tissue/diagnosis	Death code >	U2	U2	U2	FS	FS	U2	U2	U2	U2	U1	FS	U2	U2	U2	
Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
Operator >	Operator >												142			
181-Cyst	s															
276-Mammary tissue	p															
286-Myodegeneration	s															
281-Inflammation, mixed	s															
308-B-Fibroma																
113-B-Lipoma																
200-M-Mesothelio, mal																
328-N-Sarcoma, histiocytic																
331-Splenic tissue, "accessory"	p															
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >															
114-N-Carcinoma, squamous cell																
Thymus (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >															
324-Hemorrhage	s															
137-M-Leukemia, monuc																
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >															
139-N-Leukemia, monuc																
Tail (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >															
302-Cyst, epi inclusion	p															
145-Inflammation, acute	s															
174-Inflammation, mixed	s															
175-Hyperplasia/hyperkeratosis	s															
Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >															
151-N-Leukemia, monuc																
Bone, other (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >															
269-Hyperostosis	s															
228-M-Sarcoma, NOS																
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >															
297-M-Carcinoma, squamous cell																

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Group	Sex	Dosage	Animal >	6833F532	6833F534	6833F536	6833F538	6833F540	6833F542	6833F544
2	M	2 g/m3	Animal >	6833F533	6833F535	6833F537	6833F539	6833F541	6833F543	6833F545
		Tissue/diagnosis	Death code >	U2	U2	FS	U2	U2	FS	U2
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >							
		311-M-Mesothelio, mal	S							

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Group Sex Dosage	Animal >	6833F547	6833F549
2 M 2 g/m3	Animal >	6833F546	6833F548
Tissue/diagnosis	Death code >	U2 FS U2	U1 FS

Lungs (17)	Status >	142	142	142	142	142	142
4-Alveolar histiocytosis	Operator >	-	1	1	-	-	1
299-Autolysis, marked	p	-	-	-	-	-	-
3-Congestion	s	-	-	-	-	-	-
82-Fibrosis, focal	s	-	-	-	-	-	-
154-Hemorrhage	s	-	-	-	-	-	1=
306-Metaplasia, squam - alv epi	s	-	-	-	-	-	-
233-Mineralization, uremic	s	-	-	-	-	-	-
298-Cyst, squamous, keratiniz	p	-	-	-	-	-	-
187-Inflammation, acute	s	-	-	-	-	-	-
84-Inflammation, mixed	s	-	-	-	-	-	-
214-Inflammation, granulomatous	s	-	-	-	-	-	-
1-Hyperplasia, alv epi, focal	s	-	-	-	-	-	-
5-Hyperplasia, alv epi, wdsprd	s	2	-	-	-	-	-
104-B-Adenoma, bronchiolo-alv	s	-	-	-	-	-	-
240-N-Sarcoma, histiocytic	s	2=	-	2=	-	-	1
2-N-Leukemia, monoc - cap invol	s	-	-	-	-	-	-
131-N-Leukemia, monoc - inv invol	s	-	-	-	-	-	-
Trachea (6)	Status >	142	142	142	142	142	142
188-Metaplasia, squamous	Operator >	-	-	-	-	-	-
7-Inflammation, acute	s	-	-	-	-	-	-
85-Inflammation, mixed	s	-	-	-	-	-	-
177-Inflammation, chronic	s	-	-	-	-	-	-
86-Hyperplasia, epithelial	s	-	-	-	-	-	-
215-N-Leukemia, mononuclear	s	-	-	-	-	-	-
Bronchial (TBLN) (3)	Status >	142	142	142	142	142	142
8-Hemorrhage	Operator >	-	2	2	-	-	-
243-N-Sarcoma, histiocytic	s	-	-	-	-	-	-
9-N-Leukemia, monoc	s	1	-	-	-	-	-
Thyroid glands (7)	Status >	142	142	142	142	142	142
115-Cyst, follicular	Operator >	-	-	-	-	-	-
73-Hyperplasia, C-cell, focal	p	2	-	-	-	-	-
153-Hyperplasia, follicular cell	s	-	-	-	-	-	-
10-B-Adenoma, C-cell	s	-	-	-	-	-	1=
87-B-Adenoma, follicular cell	s	-	-	-	-	-	-
204-M-Carcinoma, C-cell	s	-	-	-	-	-	-
125-M-Carcinoma, follicular cell	s	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6833F547	6833F548	6833F549
2 M 2 g/m3	Animal >	6833F546	6833F548	6833F550
Tissue/diagnosis	Death code >	U2 FS	U2 U1	FS
Parathyroid (2)	Status >	142	142	142
235-Hyperplasia, diffuse	Operator >	-	-	-
203-Hyperplasia, focal	s	-	-	-
Aorta (2)	Status >	142	142	142
132-N-Leukemia, monuc - inv invol	Operator >	-	-	-
325-Dilatation	p	-	-	-
Esophagus	Status >	U	U	U
	Operator >	142	142	142
Larynx (5)	Status >	142	142	142
95-Ulceration	Operator >	-	-	-
18-Inflammation, mixed	s	-	-	-
19-Inflammation, chronic	s	2	2	1
16-Metaplasia, squamous	s	-	-	-
15-Hyperplasia, epithelial	s	2	1	2
Salivary gland (3)	Status >	142	142	142
225-Degen	Operator >	-	-	-
236-Inflammation, acute	s	-	-	-
20-M-Leukemia, monuc	s	-	-	-
Mandibular LN (4)	Status >	142	142	142
126-Hemorrhage	Operator >	-	-	-
118-Sinus plasmacytosis	s	-	-	-
60-Hyperplasia, lymphoid	s	-	-	-
21-N-Leukemia, monuc	s	1	-	-
Liver (17)	Status >	142	142	142
26-Angiectasis	Operator >	-	1	4=
160-Congestion	s	-	-	-
272-Cyst	s	-	-	-
99-Fatty Change	s	-	-	-
158-Foci cell alter, basophilic	s	-	-	-
123-Hdn	p	-	-	-
22-Necrosis	s	1	-	-
231-Thrombus	s	-	-	-
23-Vacuoliz, cyto	s	-	-	-
29-Inflammation, chronic	s	-	1	-
27-Hyperplasia, biliary	s	3	2	3
28-Hyperplasia, hepato, regen	s	-	-	-
122-B-Adenoma, hepatocellular	s	-	-	-

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2 M 2 g/m3	Animal >	6833F546	6833F548	6833F550
Tissue/diagnosis	Death code >	U2 FS	U2 U1	FS
<hr/>				
Liver (17)	Status >			
	Operator >	142	142	142
150-M-Carcinoma, hepatocellular		-	-	-
246-M-Sarcoma, histiocytic		-	-	-
310-M-Sarcoma, undifferentiated		-	-	-
24-M-Leukemia, monoc		2	2=	2=
<hr/>				
Spleen (7)	Status >			
	Operator >	142	142	142
285-Congestion	s	-	-	-
63-Fibrosis	s	4=	-	-
247-Hemorrhage	s	-	-	-
129-Necrosis	s	-	-	-
201-M-Fibrosarc		-	-	-
30-M-Leukemia, monoc		2=	2=	2=
326-N-Sarcoma, histiocytic		-	-	-
<hr/>				
Kidneys (9)	Status >			
	Operator >	142	142	142
161-Cyst	s	-	-	-
248-Degen, hyaline droplet	s	-	-	-
251-Infarct	s	-	-	-
33-Nephropathy, chronic	s	2	3	2
130-Pigment, tubular epithelium	s	-	-	3=
274-Inflammation, acute	s	-	-	-
213-B-Adenoma, renal tubule		-	-	-
191-M-Carcinoma, renal tubule		1=	-	-
68-M-Leukemia, monoc		-	-	-
<hr/>				
Heart (6)	Status >			
	Operator >	142	142	142
96-Degen, myocyte	s	1	-	-
116-Fibrosis	s	-	-	-
206-Thrombus	s	-	-	-
279-Inflammation, acute	s	-	-	-
34-Inflammation, focal, chronic	s	-	-	-
35-M-Leukemia, monoc		-	-	-
<hr/>				
Stomach (2)	Status >			
	Operator >	142	142	142
101-Inflammation, mixed	s	-	-	-
100-Hyperplasia, sq epi	s	-	-	-
<hr/>				
Cecum (1)	Status >			
	Operator >	142	142	142
69-N-Leukemia, monoc		-	-	-

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Lovelace Respiratory  
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Group Sex Dosage	Animal >	6833F547	6833F549
2 M 2 g/m3	Animal >	6833F546	6833F548
Tissue/diagnosis	Death code >	U2 FS	U2 U1 FS
Urinary bladder (5)	Status >	142	142
178-Hemorrhage	Operator >	-	-
193-Inflammation, mixed	s	-	-
37-Inflammation, chronic	s	-	-
61-B-Papilloma, transitional	-	-	-
134-M-Leukemia, monuc	-	-	-
Duodenum	Status >	U	U
	Operator >	142	142
Jejunum (1)	Status >	142	142
80-M-Adenocarcinoma	Operator >	-	-
Ileum (3)	Status >	142	142
78-Hyperplasia, lymphoid	Operator >	-	-
81-B-Fibroma	s	-	-
207-N-Leukemia, monuc	-	-	-
Colon (2)	Status >	142	142
197-Inflammation, mixed	Operator >	-	-
156-B-Leiomyoma	s	-	-
Pancreas (2)	Status >	142	142
323-M-Carcinoma, ductal cell	Operator >	-	-
135-M-Leukemia, monuc	-	-	-
Rectum	Status >	U	U
	Operator >	142	142
Adrenal glands (10)	Status >	142	142
164-Cyst	Operator >	-	-
62-Degen, cytopl vacuol	s	-	-
194-Necrosis	s	-	-
108-Thrombus	s	-	-
277-Hyperplasia, cort, diffuse	s	-	-
38-Hyperplasia, medulla, focal	p	-	-
77-B-Pheochrom, bgn	-	-	-
305-B-Pheochro, complex, benign	1	-	-
74-M-Pheochromocytoma, malign	-	-	-
57-M-Leukemia, monuc	-	-	-

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Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6833F547	6833F548	6833F549
2 M 2 g/m3	Animal >	6833F546	6833F548	6833F550
Tissue/diagnosis	Death code >	U2 FS	U2 U1	FS
Prostate (6)	Status >	142	142	142
	Operator >	-	-	-
143-Atrophy	S	-	-	-
179-Hemorrhage	S	-	-	-
109-Mineralization	S	-	-	-
273-Hyperplasia	S	-	-	-
88-Inflammation, acute	S	-	-	-
64-Inflammation, mixed	S	3=	-	2
Epididymis (4)	Status >	142	142	142
	Operator >	-	-	-
119-Atrophy	S	-	-	-
242-Granuloma, sperm	S	-	-	-
97-Inflammation, chronic	S	-	-	-
198-M-Mesothelio, mal	S	-	-	-
Seminal vesicle (4)	Status >	142	142	142
	Operator >	-	-	-
120-Atrophy	S	-	-	-
182-Dilatation	S	-	-	-
307-Hyperplasia	S	-	-	-
136-M-Leukemia, monuc	S	-	-	-
Mesenteric LN (4)	Status >	142	142	142
	Operator >	-	-	-
147-Hemorrhage	S	-	-	-
79-Histiocytosis, sinus	S	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-
43-N-Leukemia, monuc	S	-	-	-
Testes (5)	Status >	142	142	142
	Operator >	-	-	-
152-Atrophy	S	-	-	-
287-Hemorrhage	S	-	-	-
105-Hyperplasia, interst cell	P	-	-	-
54-B-Adenoma, interstitial	P	1=	1=	1=
199-M-Mesothelioma, malig	P	-	-	-
Sciatic nerve (1)	Status >	142	142	142
	Operator >	-	-	-
83-N-Leukemia, monuc	S	-	-	-
Muscle, skeletal (3)	Status >	142	142	142
	Operator >	-	-	-
304-Inflammation, chronic	S	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-
271-M-Leukemia, monuc	S	-	-	-

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Group	Sex	Dosage	Animal >	6833F547	6833F549
2	M	2 g/m3	Animal >	6833F546	6833F548
			Death code >	U2 FS	U1 U1 FS
Tissue/diagnosis					
Mammary gland (6)					
			Status >	142	142
			Operator >	142	142
284-Cyst			P	-	-
166-Ectasia			S	-	-
155-Hyperplasia, lobular			S	-	-
165-B-Fibroadenoma			-	-	-
55-B-Fibroma			1=	-	-
266-N-Sarcoma, histiocytic			-	-	-
Skin (13)					
			Status >	142	142
			Operator >	142	142
229-Cyst, epith inc			P	-	-
140-Fibrosis			S	-	-
221-Hyperkeratosis			S	-	-
241-Necrosis			S	-	-
237-Inflammation, mixed			S	3=	-
148-Inflammation, chronic			S	-	-
149-B-Fibroma			-	-	-
176-B-Keratoacanthoma			-	-	-
223-B-Tumor, basal cell, benign			-	-	-
309-B-Tumor, hair follicle, ben			-	-	-
300-M-Carcinoma, sebaceous cell			-	-	-
303-M-Sarcoma, undifferentiated			-	-	-
327-N-Sarcoma, histiocytic			-	-	-
Brain (10)					
			Status >	142	142
			Operator >	2	-
44-Compression			S	-	-
103-Ectasia, ventricular sys			S	-	-
226-Edema			S	-	-
189-Gliosis			S	-	-
183-Hemorrhage			S	-	-
192-Mineralization			S	-	-
45-Necrosis			S	-	-
275-Inflammation, acute			S	-	-
190-Inflammation, chronic			S	-	-
224-M-Astrocytoma, malignant			-	-	-
Eyes/optic nerve (12)					
			Status >	142	142
			Operator >	-	-
89-Atrophy			S	-	-
110-Atrophy, retinal, unilat			S	-	-
111-Cataract			P	-	-
90-Degen			S	-	-
144-Metaplasia, osseous, sclera			S	-	-
46-Mineralization, corneal str			S	-	-
59-Mineralization, scleral			S	-	-
121-Neovascularization, corneal			S	-	-
180-Inflammation, acute			S	-	-

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Group Sex Dosage	Animal >	6833F547	6833F548	6833F549
2 M 2 g/m3	Animal >	6833F546	6833F548	6833F550
Tissue/diagnosis	Death code >	U2 FS	U2 U1	FS
Eyes/optic nerve (12)	Status >	142	142	142
Operator >	Operator >	-	-	-
127-Inflammation, mixed	s	-	-	-
278-Inflammation, chronic	s	-	-	-
216-M-Leukemia, monuc	s	-	-	-
Bone, femur (2)	Status >	142	142	142
Operator >	Operator >	-	-	-
209-New bone, endosteal	s	-	-	-
212-Inflammation, acute	s	-	-	-
Spinal cord (3)	Status >	142	142	142
Operator >	Operator >	-	-	-
48-Degen, white matter	s	-	-	-
184-Hemorrhage	s	-	-	-
280-Inflammation, acute	s	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142
Operator >	Operator >	-	-	-
261-Degeneration-resp epith	s	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	-	1
106-Metaplasia, squ-resp epith	s	-	-	-
124-Metaplasia, squ-trans epith	s	-	-	-
91-Inflammation, mixed	s	-	-	-
49-Inflammation-nasolac duct	s	2	2	-
107-Inflammation-resp epith	s	-	-	-
186-Hyperplasia-resp epith	s	-	-	-
217-M-Leukemia, monuc	s	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142
Operator >	Operator >	-	-	-
98-Degeneration-olfact epith	s	-	-	-
51-Degeneration,hyaline-olf epi	s	-	-	-
262-Degeneration-resp epith	s	-	-	1
202-Degeneration, hyal-resp epith	s	-	-	-
210-Metaplasia, sec-olfact epith	s	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-
92-Inflammation, mixed	s	1	-	-
227-Hyperplasia-resp epith	s	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-
218-M-Leukemia, monuc	s	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142
Operator >	Operator >	-	-	-
52-Degeneration, hyal-olf epi	s	-	-	-
93-Inflammation, mixed	s	-	-	-
195-M-Carcinoma, squamous cell	s	-	-	-
219-M-Leukemia, monuc	s	-	-	-

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Group	Sex	Dosage	Animal >	6833F547	6833F548	6833F549
2	M	2 g/m3	Animal >	6833F546	6833F548	6833F550
		Tissue/diagnosis	Death code >	U2 FS	U2 U1	FS
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Nose/Turbinates 4 (5)						
			Status >	142	142	142
		Operator >				
313-		Degeneration-olfact epith	s	-	-	-
168-		Degeneration, hyal-olf epi	s	-	-	-
94-		Inflammation, mixed	s	-	-	-
196-		N-Carcinoma, squamous cell		-	-	-
220-		M-Leukemia, monuc		-	-	-
<hr/>						
Preputial gland (4)						
			Status >	M	M	M
		Operator >				
283-		Cyst, epithelial inclusion	p			
66-		Ectasia	s			
128-		Inflammation, chronic	s			
67-		Inflammation, mixed	s			
<hr/>						
Pancreatic LN (1)						
			Status >	M	M	M
		Operator >				
<hr/>						
71-N-Leukemia, monuc						
<hr/>						
Iliac LN (2)						
			Status >	M	M	M
		Operator >				
282-		Dilatation, sinusoidal	s			
72-		N-Leukemia, monuc				
<hr/>						
Lymph node other (4)						
			Status >	M	M	M
		Operator >				
270-		Dilatation, sinusoidal	s			
169-		Infiltration, histiocytic	s			
142-		Sinus plasmacytosis	s			
75-		N-Leukemia, monuc				
<hr/>						
Mediastinal LN (4)						
			Status >	*	142	142
		Operator >			2	-
13-		Hemorrhage	s			
171-		Pigmentation	s			
267-		N-Sarcoma, histiocytic				
14-		N-Leukemia, monuc				
<hr/>						
Pituitary gland (7)						
			Status >	142	142	142
		Operator >				
173-		Angiectasis	s			
40-		Cyst	s			
172-		Hemorrhage	s			
232-		Inflammation, chronic	s			
42-		Hyperplasia, pars dist, fcl	s			
39-		B-Adenoma, pars distalis		1=	1=	1=
138-		M-Leukemia, monuc		-	-	-

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Group Sex Dosage	Animal >	6833F547	6833F549	6833F548	6833F550
2 M 2 g/m3	Animal >	6833F546	6833F548	6833F550	
Tissue/diagnosis	Death code >	U2 FS U2	U1	FS	
Tiss.not specifi (9)	Status >	M	M	M	M
	Operator >	142			
181-Cyst	s				
276-Mammary tissue	p				
286-Myodegeneration	s	2			
281-Inflammation, mixed	s				
308-B-Fibroma					
113-B-Lipoma					
200-M-Mesothelio, mal					
328-N-Sarcoma, histiocytic					
331-Splenic tissue, "accessory"	p				
Harderian gland (1)	Status >	M	M	M	M
	Operator >				
114-N-Carcinoma, squamous cell					
Thymus (2)	Status >	M	M	M	M
	Operator >				
324-Hemorrhage	s				
137-M-Leukemia, monuc					
Mediastinum (1)	Status >	M	M	M	M
	Operator >				
139-N-Leukemia, monuc					
Tail (4)	Status >	M	M	M	M
	Operator >				
302-Cyst, epi inclusion	p				
145-Inflammation, acute	s				
174-Inflammation, mixed	s				
175-Hyperplasia/hyperkeratosis	s				
Popliteal LN (1)	Status >	M	M	M	M
	Operator >				
151-N-Leukemia, monuc					
Bone, other (2)	Status >	M	M	M	M
	Operator >				
269-Hyperostosis	s				
228-M-Sarcoma, NOS					
Zymbal's gland (1)	Status >	M	M	M	M
	Operator >				
297-M-Carcinoma, squamous cell					

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Group	Sex	Dosage	Animal >	6833F547	6833F549
2	M	2 g/m3	Animal >	6833F546	6833F548
Tissue/diagnosis			Death code >	U2 FS U2	U1 FS
Mesentery (2)			Status >	M M M	M M M
301-Inflammation, mixed			Operator >		
311-M-Mesothelio, mal			S		

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Lovellace Respiratory  
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Group Sex Dosage	Animal >	6835G602	6835G604	6835G606	6835G608	6835G610	6835G612	6835G614
3 M 10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G607	6835G609	6835G611	6835G613
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS

Lungs (17)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	1	1	1	1	1	1	1	1	1	1	1	1
4-Alveolar histiocytosis	s	-	-	-	-	-	-	-	-	-	-	-	-
299-Autolysis, marked	p	-	-	-	-	-	-	-	-	-	-	-	-
3-Congestion	s	-	-	-	-	-	-	-	-	-	-	-	-
82-Fibrosis, focal	s	-	-	-	-	-	-	-	-	-	-	-	-
154-Hemorrhage	s	-	-	-	1	-	-	-	1	-	-	-	-
306-Metaplasia, squam - alv epi	s	-	-	-	-	-	-	-	-	-	-	-	-
233-Mineralization, uremic	s	-	-	-	-	-	-	-	-	-	-	-	-
298-Cyst, squamous, keratiniz	p	-	-	-	-	-	-	-	-	-	-	-	-
187-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-
84-Inflammation, mixed	s	-	1	-	-	-	-	-	-	-	-	-	-
214-Inflammation, granulomatous	s	-	-	-	-	-	-	-	-	-	-	-	-
1-Hyperplasia, alv epi, focal	s	-	-	-	-	-	-	-	-	-	-	-	-
5-Hyperplasia, alv epi, wdsprd	s	-	-	-	-	-	-	-	-	-	-	-	-
104-B-Adenoma, bronchiolo-alv	s	-	-	-	-	-	-	-	-	-	-	-	1
240-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-	-
2-N-Leukemia,monuc - cap invol	s	-	-	1	-	-	-	-	-	1	2	-	1
131-N-Leukemia,monuc - inv invol	s	-	-	2	-	-	-	-	-	-	-	-	-

Trachea (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
188-Metaplasia, squamous	s	-	-	-	-	-	-	-	-	-	-	-	-
7-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-
85-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-
177-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-	-	-
86-Hyperplasia, epithelial	s	-	-	-	-	-	-	-	-	-	-	-	-
215-N-Leukemia, mononuclear	s	-	-	2	-	-	-	-	-	-	-	-	-

Bronchial (TBLN) (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
8-Hemorrhage	s	-	-	-	-	-	-	-
243-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
9-N-Leukemia, monuc	s	-	-	2	-	-	-	-

Thyroid glands (7)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
115-Cyst, follicular	p	-	-	-	-	-	-	-
73-Hyperplasia, C-cell, focal	s	-	-	-	-	-	-	-
153-Hyperplasia, follicular cell	s	-	-	-	-	-	-	-
10-B-Adenoma, C-cell	s	-	-	-	-	-	-	-
87-B-Adenoma, follicular cell	s	-	-	-	-	-	-	-
204-M-Carcinoma, C-cell	s	-	-	-	-	-	-	-
125-M-Carcinoma, follicular cell	s	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6835G602	6835G604	6835G606	6835G608	6835G610	6835G612	6835G614
3 M 10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G607	6835G609	6835G611	6835G613
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Parathyroid (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
235-Hyperplasia, diffuse	S							
203-Hyperplasia, focal	S							
Aorta (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
132-N-Leukemia,monuc - inv invol	P							
325-Dilatation								
Esophagus	Status >	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
95-Ulceration	S							
18-Inflammation, mixed	S	2	2	2	2	2	2	2
19-Inflammation, chronic	S							
16-Metaplasia, squamous	S	1	1	1	1	1	1	1
15-Hyperplasia, epithelial	S							
Salivary gland (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
225-Degen	S							
236-Inflammation, acute	S							
20-M-Leukemia, monuc	1=							
Mandibular LN (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
126-Hemorrhage	S							
118-Sinus plasmacytosis	S							
60-Hyperplasia, lymphoid	S							
21-N-Leukemia, monuc	2=							
Liver (17)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
26-Angiectasis	S							
160-Congestion	S	2	2	2	2	2	2	2
272-Cyst	S							
99-Fatty Change	S							
158-Foci cell alter, basophilic	S							
123-Hdn	P							
22-Necrosis	S							
231-Thrombus	S							
23-Vaculoliz, cyto	S							
29-Inflammation, chronic	S							
27-Hyperplasia, biliary	S	2	3	3	1	2	2	3
28-Hyperplasia, hepato, regen	S							
122-B-Adenoma, hepatocellular	S		1=	1=				

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Group	Sex	Dosage	Animal >	6835G602	6835G604	6835G606	6835G608	6835G610	6835G612	6835G614
3	M	10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G607	6835G609	6835G611	6835G613
		Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Liver (17)										
		150-M-Carcinoma, hepatocellular	Status >	142	142	142	142	142	142	142
		246-M-Sarcoma, histiocytic	Operator >	-	-	-	-	-	-	-
		310-M-Sarcoma, undifferentiated	s	-	-	-	-	-	-	-
		24-M-Leukemia, monuc	s	2	1=	2=	1=	-	2	2
		24-M-Leukemia, monuc	s	-	-	-	-	-	-	-
		30-M-Leukemia, monuc	s	2=	1=	2=	2=	1=	-	1=
		326-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
Spleen (7)										
		285-Congestion	Status >	142	142	142	142	142	142	142
		63-Fibrosis	Operator >	-	-	-	-	-	-	-
		247-Hemorrhage	s	-	2=	-	-	-	-	2=
		129-Necrosis	s	-	-	-	-	-	-	2=
		201-M-Fibrosarc	s	-	-	-	-	-	-	-
		30-M-Leukemia, monuc	s	2=	1=	2=	2=	1=	-	1=
		326-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
Kidneys (9)										
		161-Cyst	Status >	142	142	142	142	142	142	142
		248-Degen, hyaline droplet	Operator >	-	-	-	-	-	-	-
		251-Infarct	s	-	-	-	-	-	-	-
		33-Nephropathy, chronic	s	3	4=	3	3	3	2	3
		130-Pigment, tubular epithelium	s	-	-	-	-	-	-	-
		274-Inflammation, acute	s	-	-	-	-	-	-	-
		213-B-Adenoma, renal tubule	s	-	1	1=	1=	1=	-	-
		191-M-Carcinoma, renal tubule	s	-	-	-	-	-	-	-
		68-M-Leukemia, monuc	s	-	2=	-	-	-	-	-
Heart (6)										
		96-Degen, myocyte	Status >	142	142	142	142	142	142	142
		116-Fibrosis	Operator >	-	-	-	-	-	-	-
		206-Thrombus	s	-	-	-	-	-	-	-
		279-Inflammation, acute	s	-	-	-	-	-	-	-
		34-Inflammation, focal, chronic	s	-	-	1	-	-	-	-
		35-M-Leukemia, monuc	s	1	-	-	-	-	-	-
Stomach (2)										
		101-Inflammation, mixed	Status >	142	142	142	142	142	142	142
		100-Hyperplasia, sq epi	Operator >	-	-	-	-	-	-	-
		69-N-Leukemia, monuc	s	-	-	-	-	-	-	-
Cecum (1)										
		69-N-Leukemia, monuc	Status >	142	142	142	142	142	142	142
			Operator >	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6835G602	6835G604	6835G605	6835G606	6835G607	6835G608	6835G610	6835G612	6835G614
3 M 10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G606	6835G607	6835G608	6835G610	6835G612	6835G614
Tissue/diagnosis	Death code >	FS	FS	FS	U2	FS	U2	FS	U2	FS
Urinary bladder (5)	Status >				142		142		142	
	Operator >				U		U		U	
178-Hemorrhage	s									
193-Inflammation, mixed	s									
37-Inflammation, chronic	s									
61-B-Papilloma, transitional										
134-M-Leukemia, monoc										
Duodenum	Status >				U		U		U	
	Operator >				142		142		142	
Jejunum (1)	Status >				142		142		142	
80-M-Adenocarcinoma	Operator >									
Ileum (3)	Status >				142		142		142	
	Operator >									
78-Hyperplasia, lymphoid	s									
81-B-Fibroma										
207-N-Leukemia, monoc										
Colon (2)	Status >				142		142		142	
	Operator >									
197-Inflammation, mixed	s									
156-B-Leiomyoma										
Pancreas (2)	Status >				142		142		142	
	Operator >									
323-M-Carcinoma, ductal cell										
135-M-Leukemia, monoc										
Rectum	Status >				U		U		U	
	Operator >				142		142		142	
Adrenal glands (10)	Status >				142		142		142	
	Operator >									
164-Cyst	s									
62-Degen, cytopl vacuol	s									
194-Necrosis	s								2	
108-Thrombus	s									3
277-Hyperplasia, cort, diffuse	s									
38-Hyperplasia, medulla, focal	p									
77-B-Pheochrom, bgn										
305-B-Pheochro, complex, benign										
74-M-Pheochromocytoma, malign										
57-M-Leukemia, monoc										2

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Group Sex Dosage	Animal >	6835G602	6835G604	6835G606	6835G608	6835G610	6835G612	6835G614
3 M 10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G607	6835G609	6835G611	6835G613
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Prostate (6)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
143-Atrophy	S	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	-	-	-	-
88-Inflammation, acute	S	-	-	-	-	-	-	-
64-Inflammation, mixed	S	-	-	-	2	-	-	-
Epididymis (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
119-Atrophy	S	-	-	-	-	-	-	-
242-Granuloma, sperm	S	-	-	-	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	-	-	-
198-M-Mesothelio, mal	S	-	-	-	-	-	-	-
Seminal vesicle (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	3=	-	2=	2=	3=	-	2=
120-Atrophy	S	-	-	-	-	-	-	-
182-Dilatation	S	-	-	-	-	-	-	-
307-Hyperplasia	S	-	-	-	-	-	-	-
136-M-Leukemia, monuc	S	-	1=	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
147-Hemorrhage	S	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
43-N-Leukemia, monuc	S	1=	-	-	-	-	-	-
Testes (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	2=	-	-	-	-
152-Atrophy	S	-	-	-	-	-	-	-
287-Hemorrhage	S	-	-	-	-	-	-	-
105-Hyperplasia, interst cell	P	-	-	-	-	-	P	-
54-B-Adenoma, interstitial	P	1=	1=	1=	1=	1=	1=	1=
199-M-Mesothelioma, malign	P	-	-	-	-	-	-	1=
Sciatic nerve (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Muscle, skeletal (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
304-Inflammation, chronic	S	-	-	-	-	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	1=	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6835G602	6835G604	6835G605	6835G606	6835G607	6835G608	6835G610	6835G612	6835G614
3	M	10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G606	6835G607	6835G608	6835G610	6835G612	6835G614
		Tissue/diagnosis	Death code >	FS	FS	FS	U2	FS	U2	FS	U2	FS
		Mammary gland (6)	Status >									
			Operator >	142	142	142	142	142	142	142	142	142
		284-Cyst	P	-	-	-	-	-	-	-	-	-
		166-Ectasia	S	-	-	-	-	-	-	-	-	-
		155-Hyperplasia, lobular	S	-	-	-	-	-	-	-	-	-
		165-B-Fibroadenoma		-	-	-	-	-	-	-	-	-
		55-B-Fibroma		-	-	-	-	-	-	-	-	-
		266-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-
		Skin (13)	Status >									
			Operator >	142	142	142	142	142	142	142	142	142
		229-Cyst, epith inc	P	-	-	-	-	-	-	-	-	-
		140-Fibrosis	S	-	-	-	-	-	-	-	-	-
		221-Hyperkeratosis	S	-	-	-	-	-	-	-	-	-
		241-Necrosis	S	-	-	-	-	-	-	-	-	-
		237-Inflammation, mixed	S	-	4=	-	-	-	-	-	-	-
		148-Inflammation, chronic	S	-	-	-	-	-	-	-	-	-
		149-B-Fibroma		-	-	-	-	-	-	-	-	-
		176-B-Keratoacanthoma		-	-	-	-	-	-	-	-	-
		223-B-Tumor, basal cell, benign		-	-	-	-	-	-	-	-	-
		309-B-Tumor, hair follicle, ben		-	-	-	-	1=	-	-	-	-
		300-M-Carcinoma, sebaceous cell		-	-	-	-	-	-	-	-	-
		303-M-Sarcoma, undifferentiated		-	-	-	-	-	-	-	-	1=
		327-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-
		Brain (10)	Status >									
			Operator >	142	142	142	142	142	142	142	142	142
		44-Compression	S	-	-	-	-	-	-	-	-	-
		103-Ectasia, ventricular sys	S	-	-	-	-	-	-	-	-	-
		226-Edema	S	-	-	-	-	-	-	-	-	-
		189-Gliosis	S	-	-	-	-	-	-	-	-	-
		183-Hemorrhage	S	-	-	-	-	-	-	3=	-	-
		192-Mineralization	S	-	-	-	-	-	-	-	-	-
		45-Necrosis	S	-	-	-	-	-	-	-	-	-
		275-Inflammation, acute	S	-	-	-	-	-	-	-	-	-
		190-Inflammation, chronic	S	-	-	-	-	-	-	-	-	-
		224-M-Astrocytoma, malignant		-	-	-	-	-	-	-	-	-
		Eyes/optic nerve (12)	Status >									
			Operator >	142	142	142	142	142	142	142	142	142
		89-Atrophy	S	-	-	-	-	-	-	-	-	-
		110-Atrophy, retinal, unilat	S	-	-	-	-	-	-	-	-	-
		111-Cataract	P	3	-	-	-	-	-	-	-	-
		90-Degen	S	P=	-	-	-	-	-	-	-	-
		144-Metaplasia, osseous, sclera	S	-	-	-	-	-	-	-	-	-
		46-Mineralization, corneal str	S	-	-	-	-	-	-	-	-	-
		59-Mineralization, scleral	S	-	-	-	-	-	-	-	-	-
		121-Neovascularization, corneal	S	-	-	-	-	-	-	-	-	-
		180-Inflammation, acute	S	-	-	-	-	-	-	-	-	-

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3 M 10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G607	6835G609	6835G611	6835G613
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
127-Inflammation, mixed	s	-	-	-	-	-	-	-
278-Inflammation, chronic	s	-	-	-	-	-	-	-
216-M-Leukemia, monuc		-	-	-	-	-	-	-
Bone, femur (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
209-New bone, endosteal	s	-	-	-	-	-	-	-
212-Inflammation, acute	s	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
48-Degen, white matter	s	-	-	-	-	-	-	-
184-Hemorrhage	s	-	-	-	-	-	-	-
280-Inflammation, acute	s	-	-	-	-	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
261-Degeneration-resp epith	s	-	-	-	-	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	-	-	-	-	-	-
106-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-
124-Metaplasia, squ-trans epith	s	-	-	-	-	-	-	-
91-Inflammation, mixed	s	-	-	-	-	-	-	-
49-Inflammation-nasolac duct	s	1	-	-	-	3	2	3
107-Inflammation-resp epith	s	-	-	-	-	-	-	-
186-Hyperplasia-resp epith	s	-	-	-	-	-	-	-
217-M-Leukemia, monuc		-	-	-	-	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
98-Degeneration-olfact epith	s	-	-	-	-	-	-	-
51-Degeneration,hyaline-olf epi	s	-	-	-	-	-	-	-
262-Degeneration-resp epith	s	-	-	-	-	-	-	-
202-Degeneration, hyal-resp epith	s	-	-	-	-	-	-	-
210-Metaplasia, sec-olfact epith	s	-	-	-	-	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-	-	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-
92-Inflammation, mixed	s	-	-	-	-	-	-	-
227-Hyperplasia-resp epith	s	-	-	-	-	-	-	-
112-M-Carcinoma, squamous cell		-	-	-	-	-	-	-
218-M-Leukemia, monuc		-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
52-Degeneration, hyal-olf epi	s	-	-	-	-	-	-	-
93-Inflammation, mixed	s	-	-	-	-	-	-	-
195-M-Carcinoma, squamous cell		-	-	-	-	-	-	-
219-M-Leukemia, monuc		-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6835G602	6835G603	6835G604	6835G605	6835G606	6835G607	6835G608	6835G610	6835G612	6835G614
3	M	10 g/m3	Animal >	6835G601	6835G603	6835G604	6835G605	6835G606	6835G607	6835G608	6835G610	6835G612	6835G614
		Tissue/diagnosis	Death code >	FS	FS	FS	FS	U2	FS	U2	FS	U2	FS
		Nose/Turbinates 4 (5)	Status >	142	142	142	142	142	142	142	142	142	142
		313-Degeneration-olfact epith	Operator >	-	-	-	-	-	-	-	-	-	-
		168-Degeneration, hyal-olf epi	s	-	-	-	-	-	-	-	-	-	-
		94-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-
		196-N-Carcinoma, squamous cell		-	-	-	-	-	-	-	-	-	-
		220-M-Leukemia, monoc		-	-	-	-	-	-	-	-	-	-
		Preputial gland (4)	Status >	M	M	M	M	M	M	M	M	M	M
		283-Cyst, epithelial inclusion	Operator >				142						
		66-Ectasia	s				3=						
		128-Inflammation, chronic	s				-						
		67-Inflammation, mixed	s				-						
		Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M	M	M
		71-N-Leukemia, monoc	Operator >			142							
						1=							
		Iliac LN (2)	Status >	M	M	M	M	M	M	M	M	M	M
		282-Dilatation, sinusoidal	Operator >										
		72-N-Leukemia, monoc	s										
		Lymph node other (4)	Status >	M	M	M	M	M	M	M	M	M	M
		270-Dilatation, sinusoidal	Operator >			142							
		169-Infiltration, histiocytic	s										
		142-Sinus plasmacytosis	s										
		75-N-Leukemia, monoc				1=							
		Mediastinal LN (4)	Status >	142	142	142	142	142	142	142	142	142	142
		13-Hemorrhage	Operator >		2=								
		171-Pigmentation	s										
		267-N-Sarcoma, histiocytic	s										
		14-N-Leukemia, monoc				1=							
		Pituitary gland (7)	Status >	142	142	142	142	142	142	142	142	142	142
		173-Angiectasis	Operator >										
		40-Cyst	s										
		172-Hemorrhage	s										
		232-Inflammation, chronic	s										
		42-Hyperplasia, pars dist, fcl	s										
		39-B-Adenoma, pars distalis											
		138-M-Leukemia, monoc				1							

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Group Sex Dosage	Animal >	6835G602	6835G604	6835G606	6835G608	6835G610	6835G612	6835G614
3 M 10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G607	6835G609	6835G611	6835G613
Tissue/diagnosis	Death code >	FS FS	FS U2	FS FS	FS U2	FS FS	FS U2	FS FS
Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
181-Cyst	s	142						
276-Mammary tissue	p							
286-Myodegeneration	s							
281-Inflammation, mixed	s							
308-B-Fibroma	1=							
113-B-Lipoma	-							
200-M-Mesothelio, mal	-							
328-N-Sarcoma, histiocytic	-							
331-Splenic tissue, "accessory"	p							
Harderian gland (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
114-N-Carcinoma, squamous cell								
Thymus (2)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
324-Hemorrhage	s							
137-M-Leukemia, monuc								
Mediastinum (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
139-N-Leukemia, monuc								
Tail (4)	Status >	M	M	M	M	M	M	M
Operator >	Operator >	142						
302-Cyst, epi inclusion	p							
145-Inflammation, acute	s							
174-Inflammation, mixed	s	4=						
175-Hyperplasia/hyperkeratosis	s	3=						
Popliteal LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >		142					
151-N-Leukemia, monuc								
Bone, other (2)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
269-Hyperostosis	s							
228-M-Sarcoma, NOS								
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
297-M-Carcinoma, squamous cell								

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Group	Sex	Dosage	Animal >	6835G602	6835G604	6835G606	6835G608	6835G610	6835G612	6835G614
3	M	10 g/m3	Animal >	6835G601	6835G603	6835G605	6835G607	6835G609	6835G611	6835G613
		Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >							
		311-M-Mesothelio, mal	S							
										142
										-
										2=

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Group	Sex	Dosage	Animal >	6835G617	6835G619	6835G620	6835G621	6835G622	6835G623	6835G624	6835G625	6835G627	6835G628	6835G629
3	M	10 g/m3	Animal >	6835G616	6835G618	6835G620	6835G621	6835G622	6835G623	6835G624	6835G625	6835G627	6835G628	6835G629
Tissue/diagnosis			Death code >	U2	U2	U2	FS	U2	U2	U2	U1	U1	FS	U2
Lungs (17)			Status >	142	142	142	142	142	142	142	142	142	142	142
Operator >			1	-	-	-	-	1	-	-	-	-	-	-
4-Alveolar histiocytosis			s	-	-	-	-	-	-	-	-	-	-	1
299-Autolysis, marked			p	-	-	-	-	-	-	-	-	-	-	-
3-Congestion			s	-	-	-	-	-	-	-	-	-	-	-
82-Fibrosis, focal			s	-	-	-	-	-	-	-	-	-	-	-
154-Hemorrhage			s	1=	-	-	-	-	2=	-	-	-	-	-
306-Metaplasia, squam - alv epi			s	-	-	-	-	-	-	-	-	-	-	-
233-Mineralization, uremic			s	-	-	-	-	-	-	-	-	-	-	-
298-Cyst, squamous, keratiniz			p	-	-	-	-	-	-	-	-	-	-	-
187-Inflammation, acute			s	-	-	-	-	-	-	-	-	-	-	-
84-Inflammation, mixed			s	-	-	-	-	-	-	-	-	-	-	-
214-Inflammation, granulomatous			s	-	-	-	-	-	-	-	-	-	-	-
1-Hyperplasia, alv epi, focal			s	-	-	-	-	-	-	-	-	-	-	1
5-Hyperplasia, alv epi, wdsprd			s	-	-	-	-	-	-	-	-	-	-	-
104-B-Adenoma, bronchiolo-alv			s	-	-	-	-	-	-	-	-	-	-	-
240-N-Sarcoma, histiocytic			s	-	-	-	-	-	-	-	-	-	-	-
2-N-Leukemia, monoc - cap invol			s	2	2	2=	-	2	-	2	2=	2	-	1
131-N-Leukemia, monoc - inv invol			s	-	-	-	-	-	-	-	-	-	-	-
Trachea (6)			Status >	142	142	142	142	142	142	142	142	142	142	142
Operator >			142	142	142	142	142	142	142	142	142	142	142	142
188-Metaplasia, squamous			s	-	-	-	-	-	-	-	-	-	-	-
7-Inflammation, acute			s	-	-	-	-	-	-	-	-	-	-	-
85-Inflammation, mixed			s	-	-	-	-	-	-	-	-	-	-	-
177-Inflammation, chronic			s	2	-	-	-	-	-	-	-	-	-	-
86-Hyperplasia, epithelial			s	-	-	-	-	-	-	-	-	-	-	-
215-N-Leukemia, mononuclear			s	-	-	-	-	-	-	-	-	-	-	-
Bronchial (TBLN) (3)			Status >	142	142	142	142	142	142	142	142	142	142	142
Operator >			142	142	142	142	142	142	142	142	142	142	142	142
8-Hemorrhage			s	-	-	-	-	-	-	-	-	-	-	-
243-N-Sarcoma, histiocytic			s	-	-	-	-	-	-	-	-	-	-	-
9-N-Leukemia, monoc			s	1=	-	-	-	-	-	-	-	-	-	-
Thyroid glands (7)			Status >	142	142	142	142	142	142	142	142	142	142	142
Operator >			142	142	142	142	142	142	142	142	142	142	142	142
115-Cyst, follicular			p	-	-	-	-	-	-	-	-	-	-	-
73-Hyperplasia, C-cell, focal			s	-	-	-	-	-	-	-	-	-	-	-
153-Hyperplasia, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-
10-B-Adenoma, C-cell			s	1	-	-	-	-	-	-	-	-	-	-
87-B-Adenoma, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-
204-M-Carcinoma, C-cell			s	-	-	-	-	-	-	-	-	-	-	-
125-M-Carcinoma, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6835G617	6835G619	6835G621	6835G623	6835G625	6835G627	6835G629
3 M 10 g/m3	Animal >	6835G616	6835G618	6835G620	6835G622	6835G624	6835G626	6835G628
Tissue/diagnosis	Death code >	U2 FS	U2 U2	U2 FS	U2 U2	U2 U2	U2 U1	FS U2
Parathyroid (2)	Status >	142	142	142	142	142	142	142
235-Hyperplasia, diffuse	Operator >	-	-	-	-	-	-	-
203-Hyperplasia, focal	s	-	-	-	-	-	-	-
Aorta (2)	Status >	142	142	142	142	142	142	142
132-N-Leukemia, monuc - inv invol	Operator >	-	-	-	-	-	-	-
325-Dilatation	p	-	-	-	-	-	-	-
Esophagus	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142
95-Ulceration	Operator >	-	-	-	-	-	-	-
18-Inflammation, mixed	s	2	2	2	2	2	2	2
19-Inflammation, chronic	s	-	-	-	-	-	-	-
16-Metaplasia, squamous	s	-	-	-	-	-	-	-
15-Hyperplasia, epithelial	s	-	1	2	-	-	1	-
Salivary gland (3)	Status >	142	142	142	142	142	142	142
225-Degen	Operator >	-	-	-	-	-	-	-
236-Inflammation, acute	s	-	-	-	-	-	-	-
20-M-Leukemia, monuc	s	-	-	-	-	-	-	2
Mandibular LN (4)	Status >	142	142	142	142	142	142	142
126-Hemorrhage	Operator >	-	-	-	-	-	-	-
118-Sinus plasmacytosis	s	-	-	-	-	-	-	-
60-Hyperplasia, lymphoid	s	-	-	-	-	-	-	-
21-N-Leukemia, monuc	s	1=	-	-	-	-	1	-
Liver (17)	Status >	142	142	142	142	142	142	142
26-Angiectasis	Operator >	-	-	-	-	-	-	-
160-Congestion	s	-	-	1	-	1	1	2
272-Cyst	s	-	-	-	-	-	-	-
99-Fatty Change	s	-	3=	-	-	-	-	-
158-Foci cell alter, basophilic	s	-	-	-	-	-	-	-
123-Hdn	p	-	-	-	-	-	-	-
22-Necrosis	s	-	1	-	-	-	-	-
231-Thrombus	s	-	-	-	-	-	-	-
23-Vaculoliz, cyto	s	-	-	-	-	-	-	-
29-Inflammation, chronic	s	-	-	-	-	-	-	-
27-Hyperplasia, biliary	s	2	3	2	3	3	3	3
28-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-
122-B-Adenoma, hepatocellular	s	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6835G616	6835G617	6835G619	6835G620	6835G621	6835G622	6835G623	6835G624	6835G625	6835G626	6835G627	6835G628	6835G629
3 M 10 g/m3	Animal >	U2	FS	U2	U2	U2	FS	U2	U2	U1	U2	U1	FS	U2
Tissue/diagnosis	Death code >													
	Status >													
Liver (17)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
150-M-Carcinoma, hepatocellular														
246-M-Sarcoma, histiocytic														
310-M-Sarcoma, undifferentiated														
24-M-Leukemia, monuc		2=	2	2	2=	2=	2=	2=	2	2=	2	2=	2=	2=
Spleen (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
285-Congestion	s		2=											
63-Fibrosis	s													2=
247-Hemorrhage	s													
129-Necrosis	s													
201-M-Fibrosarc														
30-M-Leukemia, monuc		2=	2=	2=	2=	2=	2=	2=	2=	2=	2=	2=	2=	2=
326-N-Sarcoma, histiocytic														
Kidneys (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
161-Cyst	s													
248-Degen, hyaline droplet	s													
251-Infarct	s													
33-Nephropathy, chronic	s	3	3	2	2	3	3	1	2	2	3	2	3	2
130-Pigment, tubular epithelium	s													
274-Inflammation, acute	s													
213-B-Adenoma, renal tubule														
191-M-Carcinoma, renal tubule														
68-M-Leukemia, monuc														
Heart (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
96-Degen, myocyte	s	1							1					
116-Fibrosis	s									1				
206-Thrombus	s									1				
279-Inflammation, acute	s													
34-Inflammation, focal, chronic	s						1				1	1		
35-M-Leukemia, monuc			1											
Stomach (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
101-Inflammation, mixed	s													
100-Hyperplasia, sq epi	s													
Cecum (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
69-N-Leukemia, monuc														

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3 M 10 g/m3	Animal >	6835G616	6835G618	6835G620	6835G622	6835G624	6835G626	6835G628
Tissue/diagnosis	Death code >	U2 FS	U2 FS	U2 FS	U2 FS	U2 U1	U2 U1	FS U2
Urinary bladder (5)	Status >	142	142	142	142	142	142	142
178-Hemorrhage	Operator >	-	-	-	-	-	-	-
193-Inflammation, mixed	s	-	-	-	-	-	-	-
37-Inflammation, chronic	s	-	-	-	-	-	-	-
61-B-Papilloma, transitional		-	-	-	-	-	-	-
134-M-Leukemia, monuc		-	-	-	-	-	-	-
Duodenum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Jejunum (1)	Status >	142	142	142	142	142	142	142
80-M-Adenocarcinoma	Operator >	-	-	-	-	-	-	-
Ileum (3)	Status >	142	142	142	142	142	142	142
78-Hyperplasia, lymphoid	Operator >	-	-	-	-	-	-	-
81-B-Fibroma	s	-	-	-	-	-	-	-
207-N-Leukemia, monuc		-	-	-	-	-	-	-
Colon (2)	Status >	142	142	142	142	142	142	142
197-Inflammation, mixed	Operator >	-	-	-	-	-	-	-
156-B-Leiomyoma	s	-	-	-	-	-	-	-
Pancreas (2)	Status >	142	142	142	142	142	142	142
323-M-Carcinoma, ductal cell	Operator >	-	-	-	-	-	-	-
135-M-Leukemia, monuc		-	-	-	-	-	-	-
Rectum	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Adrenal glands (10)	Status >	142	142	142	142	142	142	142
164-Cyst	Operator >	-	-	-	-	-	-	-
62-Degen, cytopl vacuol	s	-	-	-	-	-	-	-
194-Necrosis	s	-	2	-	-	1	-	-
108-Thrombus	s	-	-	-	-	-	-	-
277-Hyperplasia, cort, diffuse	s	-	-	-	-	-	-	2
38-Hyperplasia, medulla, focal	p	-	-	-	-	-	-	-
77-B-Pheochrom, bgn		-	1=	-	-	-	-	1=
305-B-Pheochro, complex, benign		-	-	-	-	-	-	-
74-M-Pheochromocytoma, malig		-	-	-	-	-	-	-
57-M-Leukemia, monuc		1	-	-	-	-	-	-

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3 M 10 g/m3	Animal >	6835G616	6835G618	6835G620	6835G622	6835G624	6835G626	6835G628
Tissue/diagnosis	Death code >	U2 FS	U2	U2	U2	U2	U1 U2	FS U2
Prostate (6)	Status >	142	142	142	142	142	142	142
Operator >								
143-Atrophy	S	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	1	-	-	-
88-Inflammation, acute	S	-	-	-	-	-	-	-
64-Inflammation, mixed	S	1	3	2	-	2	1	2
Epididymis (4)	Status >	142	142	142	142	142	142	142
Operator >								
119-Atrophy	S	-	-	-	-	-	-	-
242-Granuloma, sperm	S	-	-	-	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	-	-	-
198-M-Mesothelio, mal	S	-	-	-	-	-	-	-
Seminal vesicle (4)	Status >	142	142	142	142	142	142	142
Operator >								
120-Atrophy	S	-	-	-	-	-	-	-
182-Dilatation	S	-	-	-	-	-	-	-
307-Hyperplasia	S	-	-	-	-	-	-	-
136-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
Operator >								
147-Hemorrhage	S	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
43-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Testes (5)	Status >	142	142	142	142	142	142	142
Operator >								
152-Atrophy	S	3=	-	-	-	-	-	-
287-Hemorrhage	S	-	-	-	-	-	-	-
105-Hyperplasia, interst cell	P	-	-	-	-	-	-	-
54-B-Adenoma, interstitial	P	1=	1=	1=	1=	1=	1=	1=
199-M-Mesothelioma, malig	P	-	-	-	-	-	-	-
Sciatic nerve (1)	Status >	142	142	142	142	142	142	142
Operator >								
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Muscle, skeletal (3)	Status >	142	142	142	142	142	142	142
Operator >								
304-Inflammation, chronic	S	-	-	-	2	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	-	-	-	-	-	-	-



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Group Sex Dosage	Animal >	6835G617	6835G619	6835G621	6835G623	6835G625	6835G627	6835G629
3 M 10 g/m3	Animal >	6835G616	6835G618	6835G620	6835G622	6835G624	6835G626	6835G628
Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	U1	FS
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
127-Inflammation, mixed	s							
278-Inflammation, chronic	s							
216-M-Leukemia, monuc								
Bone, femur (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
209-New bone, endosteal	s							
212-Inflammation, acute	s							
Spinal cord (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
48-Degen, white matter	s							
184-Hemorrhage	s							
280-Inflammation, acute	s							
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
261-Degeneration-resp epith	s							
222-Degeneration,hyal-Resp Epith	s							
106-Metaplasia, squ-resp epith	s							
124-Metaplasia, squ-trans epith	s							
91-Inflammation, mixed	s							
49-Inflammation-nasolac duct	s							
107-Inflammation-resp epith	s							
186-Hyperplasia-resp epith	s							
217-M-Leukemia, monuc								
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
98-Degeneration-olfact epith	s							
51-Degeneration,hyaline-olf epi	s							
262-Degeneration-resp epith	s							
202-Degeneration, hyal-resp epi	s							
210-Metaplasia, sec-olfact epith	s							
292-Metaplasia, squ-olfact epith	s							
312-Metaplasia, squ-resp epith	s							
92-Inflammation, mixed	s							
227-Hyperplasia-resp epith	s							
112-M-Carcinoma, squamous cell								
218-M-Leukemia, monuc								
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
52-Degeneration, hyal-olf epi	s							
93-Inflammation, mixed	s							
195-M-Carcinoma, squamous cell								
219-M-Leukemia, monuc								

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Group Sex Dosage	Animal >	6835G617	6835G619	6835G620	6835G621	6835G622	6835G623	6835G624	6835G625	6835G626	6835G627	6835G628	6835G629
3 M 10 g/m3	Animal >	6835G616	6835G618	6835G620	6835G621	6835G622	6835G623	6835G624	6835G625	6835G626	6835G627	6835G628	6835G629
Tissue/diagnosis	Death code >	U2 FS	U2 FS	U2 U2	U2 FS	U2 U2	U2 U2	U2 U2	U1 U1	U1 U2	U1 U1	FS U2	FS U2
Nose/Turbinates 4 (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >												
313-Degeneration-olfact epith s	s												
168-Degeneration, hyal-olf epi s	s												
94-Inflammation, mixed s	s												
196-N-Carcinoma, squamous cell													
220-M-Leukemia, monuc													
Preputial gland (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >				142								
283-Cyst, epithelial inclusion p	p												
66-Ectasia s	s				3=								
128-Inflammation, chronic s	s												
67-Inflammation, mixed s	s												
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
71-N-Leukemia, monuc													
Iliac LN (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
282-Dilatation, sinusoidal s	s												
72-N-Leukemia, monuc													
Lymph node other (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >												
270-Dilatation, sinusoidal s	s												
169-Infiltration, histiocytic s	s												
142-Sinus plasmacytosis s	s												
75-N-Leukemia, monuc													
Mediastinal LN (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >												
13-Hemorrhage s	s												
171-Pigmentation s	s												
267-N-Sarcoma, histiocytic													
14-N-Leukemia, monuc													
Pituitary gland (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >												
173-Angiectasis s	s												
40-Cyst s	s	2				1					1=		
172-Hemorrhage s	s												
232-Inflammation, chronic s	s												
42-Hyperplasia, pars dist, fcl s	s												
39-B-Adenoma, pars distalis													
138-M-Leukemia, monuc													

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Group	Sex	Dosage	Animal >	6835G617	6835G619	6835G620	6835G621	6835G622	6835G623	6835G624	6835G625	6835G626	6835G627	6835G628	6835G629
3	M	10 g/m3	Animal >	6835G616	6835G618	6835G620	6835G621	6835G622	6835G623	6835G624	6835G625	6835G626	6835G627	6835G628	6835G629
		Tissue/diagnosis	Death code >	U2	FS	U2	FS	U2	U2	U2	U1	U2	U1	FS	U2
		Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >								142				
		181-Cyst	S												
		276-Mammary tissue	P												
		286-Myodegeneration	S												
		281-Inflammation, mixed	S												
		308-B-Fibroma													
		113-B-Lipoma													
		200-M-Mesothelio, mal													
		328-N-Sarcoma, histiocytic													
		331-Splenic tissue, "accessory"	P												
		Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		114-N-Carcinoma, squamous cell													
		Thymus (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		324-Hemorrhage	S												
		137-M-Leukemia, monuc													
		Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		139-N-Leukemia, monuc													
		Tail (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		302-Cyst, epi inclusion	P												
		145-Inflammation, acute	S												
		174-Inflammation, mixed	S												
		175-Hyperplasia/hyperkeratosis	S												
		Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		151-N-Leukemia, monuc													
		Bone, other (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		269-Hyperostosis	S												
		228-M-Sarcoma, NOS													
		Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >												
		297-M-Carcinoma, squamous cell													

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3	M	10 g/m3	Animal >	6835G616	6835G618	6835G620	6835G622	6835G624	6835G626	6835G628
		Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	U1	FS
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >							
		311-M-Mesothelio, mal	S							

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Group Sex Dosage	Animal >	6835G632	6835G634	6835G636	6835G638	6835G640	6835G642	6835G644
3 M 10 g/m3	Animal >	6835G631	6835G633	6835G635	6835G637	6835G641	6835G643	6835G645
Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	U2	U2
			FS	U1	FS	U2	U2	U2
			U2	U2	FS	U2	U2	U2

Lungs (17)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
4-Alveolar histiocytosis	s													
299-Autolysis, marked	p													
3-Congestion	s													
82-Fibrosis, focal	s													
154-Hemorrhage	s													
306-Metaplasia, squam - alv epi	s													
233-Mineralization, uremic	s													
298-Cyst, squamous, keratiniz	p													
187-Inflammation, acute	s			1=										
84-Inflammation, mixed	s				2									
214-Inflammation, granulomatous	s													
1-Hyperplasia, alv epi, focal	s			1										
5-Hyperplasia, alv epi, wdsprd	s													
104-B-Adenoma, bronchiolo-alv														
240-N-Sarcoma, histiocytic														
2-N-Leukemia,monuc - cap invol		2	2	2	1=	1=	2	2	1=	2=	1	2	2	2
131-N-Leukemia,monuc - inv invol														

Trachea (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
188-Metaplasia, squamous	s													
7-Inflammation, acute	s													
85-Inflammation, mixed	s													
177-Inflammation, chronic	s													
86-Hyperplasia, epithelial	s													
215-N-Leukemia, mononuclear														

Bronchial (TBLN) (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
8-Hemorrhage	s													
243-N-Sarcoma, histiocytic														
9-N-Leukemia, monuc		1=		1=										1

Thyroid glands (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >														
115-Cyst, follicular	p													
73-Hyperplasia, C-cell, focal	s													
153-Hyperplasia, follicular cell	s													
10-B-Adenoma, C-cell			1=								1=			
87-B-Adenoma, follicular cell														
204-M-Carcinoma, C-cell														
125-M-Carcinoma, follicular cell														

Group Sex Dosage	Animal >	6835G632	6835G634	6835G636	6835G638	6835G640	6835G642	6835G644
3 M 10 g/m3	Animal >	6835G631	6835G633	6835G635	6835G637	6835G641	6835G643	6835G645
Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	U2	U2
Parathyroid (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	U	U	U	U	U	U	U
235-Hyperplasia, diffuse	s	-	-	-	-	-	-	-
203-Hyperplasia, focal	s	-	-	-	-	-	-	-
Aorta (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	U	U	U	U	U	U	U
132-N-Leukemia,monuc - inv invol	p	-	-	-	-	-	-	-
325-Dilatation	p	-	-	-	-	-	-	-
Esophagus	Status >	142	142	142	142	142	142	142
Operator >	Operator >	U	U	U	U	U	U	U
Larynx (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	U	U	U	U	U	U	U
95-Ulceration	s	-	-	-	-	-	-	-
18-Inflammation, mixed	s	2	2	2	2	2	2	2
19-Inflammation, chronic	s	-	-	-	-	-	-	-
16-Metaplasia, squamous	s	1	-	-	-	-	-	1
15-Hyperplasia, epithelial	s	-	-	1	-	-	-	-
Salivary gland (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	U	U	U	U	U	U	U
225-Degen	s	-	-	-	-	-	-	-
236-Inflammation, acute	s	-	-	-	-	-	-	-
20-M-Leukemia, monuc	s	-	-	-	-	-	-	-
Mandibular LN (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	U	U	U	U	U	U	U
126-Hemorrhage	s	-	-	-	-	-	-	-
118-Sinus plasmacytosis	s	-	-	-	-	-	-	-
60-Hyperplasia, lymphoid	s	-	-	-	-	-	-	-
21-N-Leukemia, monuc	s	1=	-	-	-	1	-	1
Liver (17)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	U	U	U	U	U	U	U
26-Angiectasis	s	1	-	-	-	-	-	-
160-Congestion	s	-	-	-	-	-	-	-
272-Cyst	s	-	-	-	-	-	-	-
99-Fatty Change	s	-	-	-	-	-	-	-
158-Foci cell alter, basophilic	s	-	-	-	-	-	-	-
123-Hdn	p	-	-	-	-	-	-	-
22-Necrosis	s	-	-	-	-	-	-	-
231-Thrombus	s	-	-	-	-	-	-	-
23-Vacuoliz, cyto	s	-	-	-	-	-	-	-
29-Inflammation, chronic	s	-	-	-	-	-	-	-
27-Hyperplasia, biliary	s	3	2	4	3	2	2	3
28-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-
122-B-Adenoma, hepatocellular	s	1=	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6835G632	6835G633	6835G634	6835G635	6835G636	6835G637	6835G638	6835G639	6835G640	6835G641	6835G642	6835G643	6835G644	
3 M 10 g/m3	Animal >	6835G631	6835G632	6835G633	6835G634	6835G635	6835G636	6835G637	6835G638	6835G639	6835G640	6835G641	6835G642	6835G643	6835G644
Tissue/diagnosis	Death code >	U2	U2	U2	FS	U2	U1	U2	FS	U2	U2	U2	U2	U2	U2
Liver (17)	Status >														
150-M-Carcinoma, hepatocellular	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
246-M-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-	-
310-M-Sarcoma, undifferentiated		-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-M-Leukemia, monuc		1	2=	1	1=	-	2	2=	-	2=	2	2=	-	2	-
Spleen (7)	Status >														
285-Congestion	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
63-Fibrosis	s	-	-	-	-	-	-	-	2	-	1=	-	-	-	-
247-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
129-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
201-M-Fibrosarc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-M-Leukemia, monuc		2=	2=	1=	-	2=	2=	2=	1=	2=	2=	2=	-	2=	-
326-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kidneys (9)	Status >														
161-Cyst	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
248-Degen, hyaline droplet	s	-	-	-	2	-	-	-	-	-	-	-	-	-	-
251-Infarct	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33-Nephropathy, chronic	s	3	2	3	3=	2	2	3	3	2	2	3	2	1	3
130-Pigment, tubular epithelium	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
274-Inflammation, acute	s	-	-	-	-	-	3=	-	-	-	-	-	-	-	-
213-B-Adenoma, renal tubule		-	-	1	-	-	-	-	-	-	-	-	-	-	-
191-M-Carcinoma, renal tubule		-	-	-	-	-	-	-	-	-	-	-	-	-	-
68-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heart (6)	Status >														
96-Degen, myocyte	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
116-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206-Thrombus	s	-	-	-	-	-	-	-	-	-	-	1	-	-	-
279-Inflammation, acute	s	-	-	-	-	-	3	-	-	-	-	-	-	-	-
34-Inflammation, focal, chronic	s	-	1	1	-	-	-	-	-	-	-	1	-	1	1
35-M-Leukemia, monuc		1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stomach (2)	Status >														
101-Inflammation, mixed	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
100-Hyperplasia, sq epi	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cecum (1)	Status >														
69-N-Leukemia, monuc	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142

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3 M 10 g/m3	Animal >	6835G631	6835G633	6835G634	6835G635	6835G636	6835G637	6835G638	6835G640	6835G642	6835G644
Tissue/diagnosis	Death code >	U2	U2	U2	U2	U1	U2	FS	U2	U2	U2
Urinary bladder (5)	Status >	142	142	142	142	142	142	142	142	142	142
178-Hemorrhage	Operator >	-	-	-	-	-	-	-	-	-	-
193-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-
37-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-
61-B-Papilloma, transitional		-	-	-	-	-	-	-	-	-	-
134-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-
Duodenum	Status >	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142
Jejunum (1)	Status >	142	142	142	142	142	142	142	142	142	142
80-M-Adenocarcinoma	Operator >	-	-	-	-	-	-	-	-	-	-
Ileum (3)	Status >	142	142	142	142	142	142	142	142	142	142
78-Hyperplasia, lymphoid	Operator >	-	-	-	-	-	-	-	-	-	-
81-B-Fibroma	s	-	-	-	-	-	-	-	-	-	-
207-N-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-
Colon (2)	Status >	142	142	142	142	142	142	142	142	142	142
197-Inflammation, mixed	Operator >	-	-	-	-	-	-	-	-	-	-
156-B-Leiomyoma	s	-	-	-	-	-	-	-	-	-	-
Pancreas (2)	Status >	142	142	142	142	142	142	142	142	142	142
323-M-Carcinoma, ductal cell	Operator >	-	-	-	-	-	-	-	-	-	-
135-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-
Rectum	Status >	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142
Adrenal glands (10)	Status >	142	142	142	142	142	142	142	142	142	142
164-Cyst	Operator >	-	-	-	-	-	-	-	-	-	-
62-Degen, cytopl vacuol	s	-	-	-	-	-	-	-	-	-	-
194-Necrosis	s	-	-	-	-	-	-	-	-	-	-
108-Thrombus	s	-	-	-	-	3	-	-	-	-	-
277-Hyperplasia, cort, diffuse	s	-	-	-	-	-	-	-	-	-	-
38-Hyperplasia, medulla, focal	p	-	-	-	-	-	-	-	-	-	-
77-B-Pheochrom, bgn		-	-	-	-	-	-	-	-	1	-
305-B-Pheochro, complex, benign		-	-	-	-	-	-	-	-	-	-
74-M-Pheochromocytoma, malig		-	-	-	-	-	-	-	-	-	-
57-M-Leukemia, monuc		-	1	-	-	2=	-	-	-	-	-

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3 M 10 g/m3	Animal >	6835G631	6835G633	6835G635	6835G637	6835G639	6835G641	6835G643
Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	U2	U2
Prostate (6)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
143-Atrophy	S	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	-	-	-	-
88-Inflammation, acute	S	-	-	-	-	-	-	-
64-Inflammation, mixed	S	2	2	2	2	1	2	1
Epididymis (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
119-Atrophy	S	-	-	-	-	-	-	-
242-Granuloma, sperm	S	-	-	-	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	3	-	-
198-M-Mesothelio, mal	S	-	-	-	-	-	-	-
Seminal vesicle (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
120-Atrophy	S	-	-	-	-	-	-	-
182-Dilatation	S	-	-	-	-	-	2	-
307-Hyperplasia	S	-	-	-	-	-	-	-
136-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
147-Hemorrhage	S	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
43-N-Leukemia, monuc	S	1	-	-	-	-	-	1
Testes (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
152-Atrophy	S	-	-	-	-	-	-	-
287-Hemorrhage	S	-	-	-	-	-	2	-
105-Hyperplasia, interst cell	P	-	-	-	-	-	-	P
54-B-Adenoma, interstitial	P	1	1	1	1	1	1	1
199-M-Mesothelioma, malig	P	-	-	-	-	-	-	-
Sciatic nerve (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Muscle, skeletal (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
304-Inflammation, chronic	S	-	-	-	-	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	-	-	-	-	-	-	-

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3 M 10 g/m3	Animal >	6835G631	6835G633	6835G634	6835G635	6835G636	6835G637	6835G638	6835G640	6835G642	6835G644
Tissue/diagnosis	Death code >	U2	U2	FS	U2	U1	U2	FS	U2	U2	U2
Mammary gland (6)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >		P=	-	-	-	-	-	-	-	-	-
284-Cyst	P	-	-	-	-	-	-	-	-	-	-
166-Ectasia	S	-	-	-	-	-	-	-	-	-	-
155-Hyperplasia, lobular	S	-	-	-	-	-	-	-	-	-	-
165-B-Fibroadenoma	-	-	-	-	-	-	-	-	-	-	-
55-B-Fibroma	1=	-	-	-	-	-	-	-	1=	-	-
266-N-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-
Skin (13)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >		-	-	-	-	-	-	-	-	-	-
229-Cyst, epith inc	P	-	-	-	-	-	-	-	-	-	-
140-Fibrosis	S	-	-	-	-	-	-	-	-	-	-
221-Hyperkeratosis	S	4=	-	-	-	-	-	-	-	-	-
241-Necrosis	S	-	-	-	-	-	-	-	-	-	-
237-Inflammation, mixed	S	-	-	-	3=	-	-	-	-	-	-
148-Inflammation, chronic	S	-	-	-	-	-	-	-	-	-	-
149-B-Fibroma	-	-	-	-	-	-	-	-	-	-	-
176-B-Keratoacanthoma	-	-	-	-	-	-	-	-	-	-	-
223-B-Tumor, basal cell, benign	-	-	-	-	-	-	-	-	-	-	-
309-B-Tumor, hair follicle, ben	-	-	-	-	-	-	-	-	-	-	-
300-M-Carcinoma, sebaceous cell	-	-	-	-	-	-	-	-	-	-	-
303-M-Sarcoma, undifferentiated	-	-	-	-	-	-	-	-	-	-	-
327-N-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-
Brain (10)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >		-	-	-	-	-	-	-	-	-	-
44-Compression	S	-	-	-	-	-	-	-	-	-	-
103-Ectasia, ventricular sys	S	-	-	-	-	-	-	-	-	-	-
226-Edema	S	-	-	-	-	-	-	-	-	-	-
189-Gliosis	S	-	-	-	-	-	-	-	-	-	-
183-Hemorrhage	S	-	-	-	-	-	-	-	-	-	-
192-Mineralization	S	-	-	-	-	-	-	-	-	-	-
45-Necrosis	S	-	-	-	-	-	-	-	-	-	-
275-Inflammation, acute	S	-	-	-	-	1	-	-	-	-	-
190-Inflammation, chronic	S	-	-	-	-	-	-	-	-	-	-
224-M-Astrocytoma, malignant	-	-	-	-	-	-	-	-	-	-	-
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >		-	-	-	-	-	-	-	-	-	-
89-Atrophy	S	-	-	-	-	-	-	-	-	-	-
110-Atrophy, retinal, unilat	S	-	-	-	-	-	-	-	-	-	4
111-Cataract	P	-	-	-	-	-	-	-	-	-	P
90-Degen	S	-	-	-	-	-	-	-	-	-	-
144-Metaplasia, osseous, sclera	S	-	-	-	-	-	-	-	-	-	-
46-Mineralization, corneal str	S	-	-	-	-	1=	-	-	-	-	-
59-Mineralization, scleral	S	-	-	-	-	-	-	-	-	-	-
121-Neovascularization, corneal	S	-	-	-	-	-	-	1	-	-	3
180-Inflammation, acute	S	-	-	-	-	-	-	-	-	-	-

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3 M 10 g/m3	Animal >	6835G631	6835G633	6835G635	6835G637	6835G639	6835G641	6835G643
Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	U2	U2
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
127-Inflammation, mixed	s	-	-	-	-	-	-	-
278-Inflammation, chronic	s	-	3	-	-	-	-	-
216-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Bone, femur (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
209-New bone, endosteal	s	-	-	-	-	-	-	-
212-Inflammation, acute	s	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
48-Degen, white matter	s	-	-	-	-	-	-	-
184-Hemorrhage	s	-	-	-	-	-	-	-
280-Inflammation, acute	s	-	-	1	-	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
261-Degeneration-resp epith	s	-	-	-	-	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	-	-	-	-	1	-
106-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-
124-Metaplasia, squ-trans epith	s	-	-	-	-	-	-	-
91-Inflammation, mixed	s	-	-	1	-	-	-	-
49-Inflammation-nasolac duct	s	1	-	2	-	-	1	3
107-Inflammation-resp epith	s	-	-	-	-	-	-	-
186-Hyperplasia-resp epith	s	-	-	-	-	-	-	3
217-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
98-Degeneration-olfact epith	s	-	-	-	-	-	-	-
51-Degeneration,hyaline-olf epi	s	-	-	-	-	-	-	-
262-Degeneration-resp epith	s	-	-	-	-	-	-	-
202-Degeneration, hyal-resp epith	s	-	-	-	-	-	-	-
210-Metaplasia, sec-olfact epith	s	-	-	-	-	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-	-	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-
92-Inflammation, mixed	s	-	-	-	-	-	-	-
227-Hyperplasia-resp epith	s	-	-	-	-	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-
218-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
52-Degeneration, hyal-olf epi	s	-	-	-	-	-	1	-
93-Inflammation, mixed	s	-	-	-	-	-	-	-
195-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-
219-M-Leukemia, monoc	s	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6835G632	6835G633	6835G634	6835G635	6835G636	6835G637	6835G638	6835G639	6835G640	6835G641	6835G642	6835G643	6835G644
3	M	10 g/m3	Animal >	U2	U2	FS	U2	U1	U2	FS	FS	U2	U2	U2	U2	U2
Tissue/diagnosis			Animal >	6835G631	6835G633	6835G634	6835G635	6835G636	6835G637	6835G638	6835G639	6835G640	6835G641	6835G642	6835G643	6835G644
			Death code >	U2	U2	FS	U2	U1	U2	FS	FS	U2	U2	U2	U2	U2
Nose/Turbinates 4 (5)			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
313-Degeneration-olfact epith s			Operator >	-	-	-	-	-	-	2	-	-	-	-	-	-
168-Degeneration, hyal-olf epi s			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
94-Inflammation, mixed s			Operator >	-	-	-	-	-	-	2	-	-	-	-	-	-
196-N-Carcinoma, squamous cell			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
220-M-Leukemia, monuc			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
Preputial gland (4)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
283-Cyst, epithelial inclusion p			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
66-Ectasia s			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
128-Inflammation, chronic s			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
67-Inflammation, mixed s			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
Pancreatic LN (1)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
71-N-Leukemia, monuc			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Iliac LN (2)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
282-Dilatation, sinusoidal s			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
72-N-Leukemia, monuc			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
Lymph node other (4)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
270-Dilatation, sinusoidal s			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
169-Infiltration, histiocytic s			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
142-Sinus plasmacytosis s			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
75-N-Leukemia, monuc			Operator >	M	M	M	M	M	M	M	M	M	M	M	M	M
Mediastinal LN (4)			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
13-Hemorrhage s			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
171-Pigmentation s			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
267-N-Sarcoma, histiocytic s			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
14-N-Leukemia, monuc			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Pituitary gland (7)			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
173-Angiectasis s			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
40-Cyst s			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
172-Hemorrhage s			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
232-Inflammation, chronic s			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
42-Hyperplasia, pars dist, fcl s			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
39-B-Adenoma, pars distalis			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
138-M-Leukemia, monuc			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142

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Group	Sex	Dosage	Animal >	6835G632	6835G633	6835G634	6835G635	6835G636	6835G637	6835G638	6835G640	6835G642	6835G644
3	M	10 g/m3	Animal >	6835G631	6835G633	6835G634	6835G635	6835G636	6835G637	6835G638	6835G640	6835G642	6835G644
		Tissue/diagnosis	Death code >	U2	U2	U2	FS	U1	U2	FS	U2	U2	U2
		Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >					142					
		181-Cyst	s										
		276-Mammary tissue	p										
		286-Myodegeneration	s										
		281-Inflammation, mixed	s					4=					
		308-B-Fibroma											
		113-B-Lipoma											
		200-M-Mesothelio, mal											
		328-N-Sarcoma, histiocytic											
		331-Splenic tissue, "accessory"	p										
		Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >										
		114-N-Carcinoma, squamous cell											
		Thymus (2)	Status >	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >										
		324-Hemorrhage	s										
		137-M-Leukemia, monuc											
		Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >										
		139-N-Leukemia, monuc											
		Tail (4)	Status >	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >										
		302-Cyst, epi inclusion	p										
		145-Inflammation, acute	s										
		174-Inflammation, mixed	s										
		175-Hyperplasia/hyperkeratosis	s										
		Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >					142					
		151-N-Leukemia, monuc											
		Bone, other (2)	Status >	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >										
		269-Hyperostosis	s										
		228-M-Sarcoma, NOS											
		Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M
		Operator >	Operator >										
		297-M-Carcinoma, squamous cell											

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Group	Sex	Dosage	Animal >	6835G632	6835G634	6835G636	6835G638	6835G640	6835G642	6835G644
3	M	10 g/m3	Animal >	6835G631	6835G633	6835G635	6835G637	6835G641	6835G643	6835G645
		Tissue/diagnosis	Death code >	U2	U2	U2	U2	U2	U2	U2
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >							
		311-M-Mesothelio, mal	S							

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3	M	10 g/m3	Animal >	6835G646	6835G648
			Death code >	U2	FS
				FS	FS
				U2	U2

Lungs (17)

	Status >	142	142	142	142	142	142
Operator >							
4-Alveolar histiocytosis	s	1	-	-	-	1	-
299-Autolysis, marked	p	-	-	-	-	-	-
3-Congestion	s	-	-	-	-	-	-
82-Fibrosis, focal	s	-	-	-	-	-	-
154-Hemorrhage	s	1	-	-	-	-	-
306-Metaplasia, squam - alv epi	s	-	-	-	-	-	-
233-Mineralization, uremic	s	-	-	-	-	-	-
298-Cyst, squamous, keratiniz	p	-	-	-	-	-	-
187-Inflammation, acute	s	-	-	-	-	-	-
84-Inflammation, mixed	s	-	-	-	-	-	-
214-Inflammation, granulomatous	s	-	-	-	-	-	-
1-Hyperplasia, alv epi, focal	s	-	-	-	-	-	-
5-Hyperplasia, alv epi, wdsprd	s	-	-	-	-	-	-
104-B-Adenoma, bronchiolo-alv	s	-	-	-	-	-	-
240-N-Sarcoma, histiocytic	s	-	-	-	-	-	-
2-N-Leukemia,monuc - cap invol	s	2	-	1	-	1	-
131-N-Leukemia,monuc - inv invol	s	-	-	-	-	-	-

Trachea (6)

	Status >	142	142	142	142	142	142
Operator >							
188-Metaplasia, squamous	s	-	-	-	-	-	-
7-Inflammation, acute	s	-	-	-	-	-	-
85-Inflammation, mixed	s	-	-	-	-	-	-
177-Inflammation, chronic	s	-	-	-	-	-	-
86-Hyperplasia, epithelial	s	-	-	-	-	-	-
215-N-Leukemia, mononuclear	s	-	-	-	-	-	-

Bronchial (TBLN) (3)

	Status >	142	142	142	142	142	142
Operator >							
8-Hemorrhage	s	-	-	-	-	-	-
243-N-Sarcoma, histiocytic	s	-	-	-	-	-	-
9-N-Leukemia, monuc	s	1=	-	-	-	-	-

Thyroid glands (7)

	Status >	142	142	142	142	142	142
Operator >							
115-Cyst, follicular	p	-	-	-	-	-	-
73-Hyperplasia, C-cell, focal	s	-	-	-	-	-	-
153-Hyperplasia, follicular cell	s	-	-	-	-	-	-
10-B-Adenoma, C-cell	s	1=	-	-	-	-	-
87-B-Adenoma, follicular cell	s	-	-	-	-	-	-
204-M-Carcinoma, C-cell	s	-	-	-	-	-	-
125-M-Carcinoma, follicular cell	s	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6835G647	6835G649
3 M 10 g/m3	Animal >	6835G646	6835G648
Tissue/diagnosis	Death code >	U2 FS	FS U2
Parathyroid (2)	Status >	142	142
235-Hyperplasia, diffuse	Operator >	-	-
203-Hyperplasia, focal	s	-	-
Aorta (2)	Status >	142	142
132-N-Leukemia,monuc - inv invol	Operator >	-	-
325-Dilatation	p	-	-
Esophagus	Status >	U	U
	Operator >	142	142
Larynx (5)	Status >	142	142
95-Ulceration	Operator >	-	-
18-Inflammation, mixed	s	-	-
19-Inflammation, chronic	s	2	2
16-Metaplasia, squamous	s	1	2
15-Hyperplasia, epithelial	s	-	-
Salivary gland (3)	Status >	142	142
225-Degen	Operator >	-	-
236-Inflammation, acute	s	-	-
20-M-Leukemia, monuc	s	-	-
Mandibular LN (4)	Status >	142	142
126-Hemorrhage	Operator >	-	-
118-Sinus plasmacytosis	s	-	-
60-Hyperplasia, lymphoid	s	-	-
21-N-Leukemia, monuc	s	-	-
Liver (17)	Status >	142	142
26-Angiectasis	Operator >	-	-
160-Congestion	s	-	-
272-Cyst	s	-	-
99-Fatty Change	s	-	-
158-Foci cell alter, basophilic	s	-	-
123-Hdn	p	-	-
22-Necrosis	s	-	-
231-Thrombus	s	-	-
23-Vaculoliz, cyto	s	-	2
29-Inflammation, chronic	s	-	-
27-Hyperplasia, biliary	s	3	3
28-Hyperplasia, hepato, regen	s	-	-
122-B-Adenoma, hepatocellular	s	-	2=

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Group Sex Dosage	Animal >	6835G647	6835G649
3 M 10 g/m3	Animal >	6835G646	6835G650
Tissue/diagnosis	Death code >	U2 FS FS	FS U2
<b>Liver (17)</b>	Status >		
150-M-Carcinoma, hepatocellular	Operator >	142 142	142 142
246-M-Sarcoma, histiocytic	s	-	-
310-M-Sarcoma, undifferentiated	s	-	-
24-M-Leukemia, monuc	s	2=	1=
<b>Spleen (7)</b>	Status >		
285-Congestion	Operator >	142 142	142 142
63-Fibrosis	s	-	-
247-Hemorrhage	s	-	-
129-Necrosis	s	-	-
201-M-Fibrosarc		-	-
30-M-Leukemia, monuc		2=	1=
326-N-Sarcoma, histiocytic		-	-
<b>Kidneys (9)</b>	Status >		
161-Cyst	Operator >	142 142	142 142
248-Degen, hyaline droplet	s	-	-
251-Infarct	s	-	-
33-Nephropathy, chronic	s	3=	3
130-Pigment, tubular epithelium	s	3	4=
274-Inflammation, acute	s	-	-
213-B-Adenoma, renal tubule		-	1
191-M-Carcinoma, renal tubule		-	-
68-M-Leukemia, monuc		-	-
<b>Heart (6)</b>	Status >		
96-Degen, myocyte	Operator >	142	142
116-Fibrosis	s	-	-
206-Thrombus	s	-	-
279-Inflammation, acute	s	-	-
34-Inflammation, focal, chronic	s	-	-
35-M-Leukemia, monuc		-	-
<b>Stomach (2)</b>	Status >		
101-Inflammation, mixed	Operator >	142	142
100-Hyperplasia, sq epi	s	-	-
<b>Cecum (1)</b>	Status >		
69-N-Leukemia, monuc	Operator >	142	142
		-	-

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3 M 10 g/m3	Animal >	6835G646	6835G648
Tissue/diagnosis	Death code >	U2 FS	FS FS
			6835G650
			U2 FS

Urinary bladder (5)	Status >	142	142
	Operator >		
178-Hemorrhage	s	-	-
193-Inflammation, mixed	s	-	-
37-Inflammation, chronic	s	-	-
61-B-Papilloma, transitional		-	-
134-M-Leukemia, monuc		-	-
Duodenum	Status >	U	U
	Operator >	142	142
Jejunum (1)	Status >	142	142
	Operator >		
80-M-Adenocarcinoma		-	-
Ileum (3)	Status >	142	142
	Operator >		
78-Hyperplasia, lymphoid	s	-	-
81-B-Fibroma		-	-
207-N-Leukemia, monuc		-	-
Colon (2)	Status >	142	142
	Operator >		
197-Inflammation, mixed	s	-	-
156-B-Leiomyoma		-	-
Pancreas (2)	Status >	142	142
	Operator >		
323-M-Carcinoma, ductal cell		-	-
135-M-Leukemia, monuc		-	-
Rectum	Status >	U	U
	Operator >	142	142
Adrenal glands (10)	Status >	142	142
	Operator >		
164-Cyst	s	-	-
62-Degen, cytopl vacuol	s	-	-
194-Necrosis	s	-	-
108-Thrombus	s	-	-
277-Hyperplasia, cort, diffuse	s	-	-
38-Hyperplasia, medulla, focal	p	-	-
77-B-Pheochrom, bgn		1=	-
305-B-Pheochro, complex, benign		-	-
74-M-Pheochromocytoma, malign		-	-
57-M-Leukemia, monuc		-	-

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3 M 10 g/m3	Animal >	6835G646	6835G648	6835G650
Tissue/diagnosis	Death code >	U2 FS	FS	FS U2
Prostate (6)	Status >	142		142
	Operator >			
143-Atrophy	S			-
179-Hemorrhage	S			-
109-Mineralization	S			-
273-Hyperplasia	S			-
88-Inflammation, acute	S			-
64-Inflammation, mixed	S			3
Epididymis (4)	Status >	142		142
	Operator >			
119-Atrophy	S			-
242-Granuloma, sperm	S			-
97-Inflammation, chronic	S			-
198-M-Mesothelio, mal				-
Seminal vesicle (4)	Status >	142	142	142
	Operator >			
120-Atrophy	S			-
182-Dilatation	S		4=	-
307-Hyperplasia	S			-
136-M-Leukemia, monuc				-
Mesenteric LN (4)	Status >	142		142
	Operator >			
147-Hemorrhage	S			-
79-Histiocytosis, sinus	S			-
257-N-Sarcoma, histiocytic				-
43-N-Leukemia, monuc				-
Testes (5)	Status >	142	142	142
	Operator >			
152-Atrophy	S			-
287-Hemorrhage	S			-
105-Hyperplasia, interst cell	P			P=
54-B-Adenoma, interstitial		1=	1=	1=
199-M-Mesothelioma, malig				-
Sciatic nerve (1)	Status >	142		142
	Operator >			
83-N-Leukemia, monuc				-
Muscle, skeletal (3)	Status >	142		142
	Operator >			
304-Inflammation, chronic	S			-
258-N-Sarcoma, histiocytic				-
271-M-Leukemia, monuc				-

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3 M 10 g/m3	Animal >	6835G646	6835G650
Tissue/diagnosis	Death code >	U2 FS	FS U2
Mammary gland (6)	Status >	142	142
	Operator >		
284-Cyst	P		142
166-Ectasia	S		
155-Hyperplasia, lobular	S		
165-B-Fibroadenoma			
55-B-Fibroma		1=	
266-N-Sarcoma, histiocytic			
Skin (13)	Status >	142	142
	Operator >		
229-Cyst, epith inc	P		142
140-Fibrosis	S		
221-Hyperkeratosis	S		
241-Necrosis	S		
237-Inflammation, mixed	S		
148-Inflammation, chronic	S		
149-B-Fibroma			
176-B-Keratoacanthoma			
223-B-Tumor, basal cell, benign			
309-B-Tumor, hair follicle, ben			
300-M-Carcinoma, sebaceous cell			
303-M-Sarcoma, undifferentiated			
327-N-Sarcoma, histiocytic			
Brain (10)	Status >	142	142
	Operator >		
44-Compression	S	1=	4=
103-Ectasia, ventricular sys	S		
226-Edema	S		
189-Gliosis	S		
183-Hemorrhage	S		
192-Mineralization	S		
45-Necrosis	S		
275-Inflammation, acute	S		
190-Inflammation, chronic	S		
224-M-Astrocytoma, malignant			
Eyes/optic nerve (12)	Status >	142	142
	Operator >		
89-Atrophy	S		
110-Atrophy, retinal, unilat	S	3	
111-Cataract	P	P=	
90-Degen	S		
144-Metaplasia, osseous, sclera	S		
46-Mineralization, corneal str	S	1	
59-Mineralization, scleral	S		
121-Neovascularization, corneal	S	2	
180-Inflammation, acute	S		

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3 M 10 g/m3	Animal >	6835G646	6835G648	6835G650
Tissue/diagnosis	Death code >	U2 FS	FS	FS U2
Eyes/optic nerve (12)	Status >	142	142	142
Operator >	Operator >	142	142	142
127-Inflammation, mixed	s	-	-	-
278-Inflammation, chronic	s	-	-	-
216-M-Leukemia, monuc	s	-	-	-
Bone, femur (2)	Status >	142	142	142
Operator >	Operator >	142	142	142
209-New bone, endosteal	s	-	-	-
212-Inflammation, acute	s	-	-	-
Spinal cord (3)	Status >	142	142	142
Operator >	Operator >	142	142	142
48-Degen, white matter	s	-	-	-
184-Hemorrhage	s	-	-	-
280-Inflammation, acute	s	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142
Operator >	Operator >	142	142	142
261-Degeneration-resp epith	s	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	-	-
106-Metaplasia, squ-resp epith	s	-	-	-
124-Metaplasia, squ-trans epith	s	-	-	-
91-Inflammation, mixed	s	-	1	1
49-Inflammation-nasolac duct	s	-	-	-
107-Inflammation-resp epith	s	-	-	-
186-Hyperplasia-resp epith	s	-	-	-
217-M-Leukemia, monuc	s	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142
Operator >	Operator >	142	142	142
98-Degeneration-olfact epith	s	-	-	-
51-Degeneration,hyaline-olf epi	s	-	-	-
262-Degeneration-resp epith	s	-	-	-
202-Degeneration, hyal-resp epi	s	-	-	-
210-Metaplasia, sec-olfact epith	s	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-
92-Inflammation, mixed	s	-	-	-
227-Hyperplasia-resp epith	s	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-
218-M-Leukemia, monuc	s	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142
Operator >	Operator >	142	142	142
52-Degeneration, hyal-olf epi	s	-	-	-
93-Inflammation, mixed	s	-	-	-
195-M-Carcinoma, squamous cell	s	-	-	-
219-M-Leukemia, monuc	s	-	-	-

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Lovelace Respiratory  
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Rat/F344/N

Group	Sex	Dosage	Animal >	6835G647	6835G649	6835G650
3	M	10 g/m3	Animal >	6835G646	6835G648	6835G650
Tissue/diagnosis			Death code >	U2	FS	FS U2
Nose/Turbinates 4 (5)						
313-Degeneration-olfact epith			Status >	142	142	142
168-Degeneration, hyal-olf epi			Operator >	-	-	-
94-Inflammation, mixed			s	-	-	-
196-N-Carcinoma, squamous cell			s	-	-	-
220-M-Leukemia, monuc			s	-	-	-
Preputial gland (4)						
283-Cyst, epithelial inclusion			Status >	M	M	M
66-Ectasia			Operator >	p		
128-Inflammation, chronic			s			
67-Inflammation, mixed			s			
Pancreatic LN (1)						
71-N-Leukemia, monuc			Status >	M	M	M
			Operator >			
Iliac LN (2)						
282-Dilatation, sinusoidal			Status >	M	M	M
72-N-Leukemia, monuc			Operator >	s		
Lymph node other (4)						
270-Dilatation, sinusoidal			Status >	M	M	M
169-Infiltration, histiocytic			Operator >			
142-Sinus plasmacytosis			s			
75-N-Leukemia, monuc			s			
Mediastinal LN (4)						
13-Hemorrhage			Status >	142		142
171-Pigmentation			Operator >	s		-
267-N-Sarcoma, histiocytic			s			-
14-N-Leukemia, monuc			s			-
Pituitary gland (7)						
173-Angiectasis			Status >	142	142	142
40-Cyst			Operator >	-	-	-
172-Hemorrhage			s			-
232-Inflammation, chronic			s			-
42-Hyperplasia, pars dist, fcl			s	1		-
39-B-Adenoma, pars distalis			s	-	1	1
138-M-Leukemia, monuc			s	-	-	-

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Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6835G647	6835G649
3 M 10 g/m3	Animal >	6835G646	6835G650
Tissue/diagnosis	Death code >	U2 FS	FS U2
Tiss.not specifi (9)	Status >	M M M M M	M M M M M
Operator >	Operator >		
181-Cyst	s		
276-Mammary tissue	p		
286-Myodegeneration	s		
281-Inflammation, mixed	s		
308-B-Fibroma			
113-B-Lipoma			
200-M-Mesothelio, mal			
328-N-Sarcoma, histiocytic			
331-Splenic tissue, "accessory"	p		
Harderian gland (1)	Status >	M M M M M	M M M M M
Operator >	Operator >		
114-N-Carcinoma, squamous cell			
Thymus (2)	Status >	M M M M M	M M M M M
Operator >	Operator >		
324-Hemorrhage	s		
137-M-Leukemia, monuc			
Mediastinum (1)	Status >	M M M M M	M M M M M
Operator >	Operator >		
139-N-Leukemia, monuc			
Tail (4)	Status >	M M M M M	M M M M M
Operator >	Operator >		
302-Cyst, epi inclusion	p		
145-Inflammation, acute	s		
174-Inflammation, mixed	s		
175-Hyperplasia/hyperkeratosis	s		
Popliteal LN (1)	Status >	M M M M M	M M M M M
Operator >	Operator >		
151-N-Leukemia, monuc			
Bone, other (2)	Status >	M M M M M	M M M M M
Operator >	Operator >		
269-Hyperostosis	s		
228-M-Sarcoma, NOS			
Zymbal's gland (1)	Status >	M M M M M	M M M M M
Operator >	Operator >		
297-M-Carcinoma, squamous cell			

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Group	Sex	Dosage	Animal >	6835G647	6835G649
3	M	10 g/m3	Animal >	6835G646	6835G650
Tissue/diagnosis			Death code >	U2 FS	FS U2
Mesentery (2)			Status >	M	M
			Operator >	M	M
301-Inflammation, mixed			S		
311-M-Mesothelio, mal					

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Group Sex Dosage	Animal >	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H710	6837H711	6837H712	6837H714
4 M 20 g/m3	Animal >	6837H701	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H710	6837H711	6837H712	6837H714
Tissue/diagnosis	Death code >	U2	FS	U2	FS	FS	U2	FS	U2	U2	U2	U2
		142	142	142	142	142	142	142	142	142	142	142
Lungs (17)	Status >											
4-Alveolar histiocytosis	Operator >	1	-	-	-	1	-	-	1	-	-	-
299-Autolysis, marked	s											
3-Congestion	p											
82-Fibrosis, focal	s											
154-Hemorrhage	s											
306-Metaplasia, squam - alv epi	s											
233-Mineralization, uremic	s	3										
298-Cyst, squamous, keratiniz	p											
187-Inflammation, acute	s											
84-Inflammation, mixed	s								1	1		
214-Inflammation, granulomatous	s											
1-Hyperplasia, alv epi, focal	s											
5-Hyperplasia, alv epi, wdsprd	s											
104-B-Adenoma, bronchiolo-alv	s											
240-N-Sarcoma, histiocytic	s											
2-N-Leukemia,monuc - cap invol	s				2							2
131-N-Leukemia,monuc - inv invol	s							2				

Group Sex Dosage	Animal >	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H710	6837H711	6837H712	6837H714
4 M 20 g/m3	Animal >	6837H701	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H710	6837H711	6837H712	6837H714
Tissue/diagnosis	Death code >	U2	FS	U2	FS	FS	U2	FS	U2	U2	U2	U2
		142	142	142	142	142	142	142	142	142	142	142
Trachea (6)	Status >											
188-Metaplasia, squamous	Operator >	142	142	142	142	142	142	142	142	142	142	142
7-Inflammation, acute	s											
85-Inflammation, mixed	s	2							2			
177-Inflammation, chronic	s											
86-Hyperplasia, epithelial	s											
215-N-Leukemia, mononuclear	s											
Bronchial (TBLN) (3)	Status >			*								
8-Hemorrhage	Operator >	142	142	142	142	142	142	142	142	142	142	142
243-N-Sarcoma, histiocytic	s											
9-N-Leukemia, monuc	s				1							
Thyroid glands (7)	Status >											
115-Cyst, follicular	Operator >	142	142	142	142	142	142	142	142	142	142	142
73-Hyperplasia, C-cell, focal	p											
153-Hyperplasia, follicular cell	s						1					1
10-B-Adenoma, C-cell	s											
87-B-Adenoma, follicular cell	s											1
204-M-Carcinoma, C-cell	s											
125-M-Carcinoma, follicular cell	s											

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Group Sex Dosage	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H709	6837H710	6837H711	6837H712	6837H713	6837H714
4 M 20 g/m3	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	U2	U2	FS
Tissue/diagnosis	Animal >	Animal >	Death code >	Animal >	Animal >	Death code >	Animal >	Animal >	Death code >	Animal >	Animal >	Death code >	Animal >	Animal >
Parathyroid (2)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
235-Hyperplasia, diffuse	3	-	-	-	-	-	-	-	-	-	-	-	-	-
203-Hyperplasia, focal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aorta (2)	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >
132-N-Leukemia,monoc - inv invol	142	142	142	142	142	142	142	142	142	142	142	142	142	142
325-Dilatation	P=	-	-	-	-	-	-	-	-	-	-	-	-	-
Esophagus	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >
Larynx (5)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
95-Ulceration	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18-Inflammation, mixed	3	2	2	2	2	2	3	2	2	2	2	2	2	2
19-Inflammation, chronic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-Metaplasia, squamous	-	-	-	2	-	-	-	-	-	2	-	-	-	-
15-Hyperplasia, epithelial	2	1	2	2	1	2	2	2	2	-	-	-	1	2
Salivary gland (3)	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >
225-Degen	142	142	142	142	142	142	142	142	142	142	142	142	142	142
236-Inflammation, acute	1	-	-	-	-	-	-	-	-	-	-	-	-	-
20-M-Leukemia, monoc	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mandibular LN (4)	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >
126-Hemorrhage	142	142	142	142	142	142	142	142	142	142	142	142	142	142
118-Sinus plasmacytosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60-Hyperplasia, lymphoid	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21-N-Leukemia, monoc	-	-	-	-	-	-	-	1	1	-	-	1	-	-
Liver (17)	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >
26-Angiectasis	142	142	142	142	142	142	142	142	142	142	142	142	142	142
160-Congestion	2	-	-	1	-	2	-	-	-	1	-	-	1	-
272-Cyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-
99-Fatty Change	-	-	-	-	-	-	-	-	-	-	-	-	-	-
158-Foci cell alter, basophilic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123-Hdn	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22-Necrosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
231-Thrombus	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23-Vaculoliz, cyto	-	-	-	2	-	-	-	-	-	-	-	-	-	-
29-Inflammation, chronic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27-Hyperplasia, biliary	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28-Hyperplasia, hepato, regen	3=	2	-	2	3	2	3	2	2	2	2	1	1	4
122-B-Adenoma, hepatocellular	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H709	6837H710	6837H711	6837H712	6837H713	6837H714
4 M 20 g/m3	Animal >	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	U2	U2	FS
Tissue/diagnosis	Death code >														
	Status >														
Liver (17)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
150-M-Carcinoma, hepatocellular															
246-M-Sarcoma, histiocytic															
310-M-Sarcoma, undifferentiated															
24-M-Leukemia, monuc				2=		2=		2	2=	2=			1	2=	2=
Spleen (7)	Status >														
285-Congestion	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
63-Fibrosis	s														
247-Hemorrhage	s														
129-Necrosis	s														
201-M-Fibrosarc															
30-M-Leukemia, monuc				1		2=		2=	2=	2=			1	2=	2=
326-N-Sarcoma, histiocytic													2		
Kidneys (9)	Status >														
161-Cyst	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
248-Degen, hyaline droplet	s														
251-Infarct	s														
33-Nephropathy, chronic	s	4=	3	3=	3	3=	3=	2	3=	3	3	3	2=	4=	4=
130-Pigment, tubular epithelium	s			3											
274-Inflammation, acute	s														
213-B-Adenoma, renal tubule															
191-M-Carcinoma, renal tubule															
68-M-Leukemia, monuc															
Heart (6)	Status >														
96-Degen, myocyte	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
116-Fibrosis	s	2					1								
206-Thrombus	s	2								1=					
279-Inflammation, acute	s														
34-Inflammation, focal, chronic	s	1	1		1	1								1	1
35-M-Leukemia, monuc									1						
Stomach (2)	Status >														
101-Inflammation, mixed	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
100-Hyperplasia, sq epi	s														
Cecum (1)	Status >														
69-N-Leukemia, monuc	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142

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Group Sex Dosage	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H709	6837H710	6837H711	6837H712	6837H713	6837H714
4 M 20 g/m3	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	U2	U2	FS
Tissue/diagnosis	Animal >													
	Death code >													
Urinary bladder (5)	Status >													
178-Hemorrhage	Operator >													
193-Inflammation, mixed	s	s	s	s	s	s	s	s	s	s	s	s	s	s
37-Inflammation, chronic	s	s	s	s	s	s	s	s	s	s	s	s	s	s
61-B-Papilloma, transitional														
134-M-Leukemia, monoc								1						
Duodenum	Status >													
	Operator >													
Jejunum (1)	Status >													
80-M-Adenocarcinoma	Operator >													
Ileum (3)	Status >													
78-Hyperplasia, lymphoid	Operator >													
81-B-Fibroma	s	s	s	s	s	s	s	s	s	s	s	s	s	s
207-N-Leukemia, monoc														
Colon (2)	Status >													
197-Inflammation, mixed	Operator >													
156-B-Leiomyoma	s	s	s	s	s	s	s	s	s	s	s	s	s	s
Pancreas (2)	Status >													
323-M-Carcinoma, ductal cell	Operator >													
135-M-Leukemia, monoc														
Rectum	Status >													
	Operator >													
Adrenal glands (10)	Status >													
164-Cyst	Operator >													
62-Degen, cytopl vacuol	s	s	s	s	s	s	s	s	s	s	s	s	s	s
194-Necrosis	s	s	s	s	s	s	s	s	s	s	s	s	s	s
108-Thrombus	s	s	s	s	s	s	s	s	s	s	s	s	s	s
277-Hyperplasia, cort, diffuse	s	s	s	s	s	s	s	s	s	s	s	s	s	s
38-Hyperplasia, medulla, focal	p	p	p	p	p	p	p	p	p	p	p	p	p	p
77-B-Pheochrom, bgn														
305-B-Pheochro, complex, benign														
74-M-Pheochromocytoma, malig														
57-M-Leukemia, monoc														

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Group Sex Dosage	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H710	6837H711	6837H712	6837H713	6837H714
4 M 20 g/m3	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	U2	FS
Tissue/diagnosis	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H710	6837H711	6837H712	6837H713	6837H714
Animal >	142	142	142	142	142	142	142	142	142	142	142	142	142
Animal >	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	U2	FS
Death code >													
Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >													
143-Atrophy								1					
179-Hemorrhage													
109-Mineralization													
273-Hyperplasia													
88-Inflammation, acute													
64-Inflammation, mixed	3	1	2	3	1					2		4	
Epididymis (4)													
Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >													
119-Atrophy													
242-Granuloma, sperm													
97-Inflammation, chronic													
198-M-Mesothelio, mal			2										
Seminal vesicle (4)													
Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >													
120-Atrophy													
182-Dilatation													
307-Hyperplasia													
136-M-Leukemia, monuc													
Mesenteric LN (4)													
Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >													
147-Hemorrhage													
79-Histiocytosis, sinus													
257-N-Sarcoma, histiocytic													
43-N-Leukemia, monuc													
Testes (5)													
Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >													
152-Atrophy													
287-Hemorrhage													
105-Hyperplasia, interst cell													
54-B-Adenoma, interstitial	1	1	1	1	1	1	1	1	1	1	1	1	1
199-M-Mesothelioma, malig			2										
Sciatic nerve (1)													
Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >													
83-N-Leukemia, monuc													
Muscle, skeletal (3)													
Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >													
304-Inflammation, chronic													
258-N-Sarcoma, histiocytic													
271-M-Leukemia, monuc													

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Group	Sex	Dosage	Animal >	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H710	6837H711	6837H712	6837H714
4	M	20 g/m3	Animal >	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	FS
Tissue/diagnosis			Animal >	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H710	6837H711	6837H712	6837H714
Mammary gland (6)			Death code >	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	FS
284-Cyst			Status >	142	142	142	142	142	142	142	142	142	142	142	142
166-Ectasia			Operator >	-	-	-	-	-	-	-	-	-	-	-	-
155-Hyperplasia, lobular			p	-	-	-	-	-	-	-	-	-	-	-	-
165-B-Fibroadenoma			s	-	-	-	-	-	-	-	-	-	-	-	-
55-B-Fibroma			s	-	-	-	-	-	-	-	-	-	-	-	-
266-N-Sarcoma, histiocytic			s	-	-	-	-	-	-	-	-	-	-	-	-
Skin (13)			Status >	142	142	142	142	142	142	142	142	142	142	142	142
229-Cyst, epith inc			Operator >	-	-	-	-	-	-	-	-	-	-	-	-
140-Fibrosis			p	-	-	-	-	-	-	-	-	-	-	-	-
221-Hyperkeratosis			s	-	-	-	-	-	-	-	-	-	-	-	-
241-Necrosis			s	-	-	-	-	-	-	-	-	-	-	-	-
237-Inflammation, mixed			s	-	-	-	-	-	-	-	-	-	-	-	-
148-Inflammation, chronic			s	-	-	-	-	-	-	-	-	-	-	-	-
149-B-Fibroma			s	-	-	-	-	-	-	-	-	-	-	-	-
176-B-Keratoacanthoma			s	-	-	-	-	-	-	-	-	-	-	-	-
223-B-Tumor, basal cell, benign			s	-	-	-	-	-	-	-	-	-	-	-	-
309-B-Tumor, hair follicle, ben			s	-	-	-	-	-	-	-	-	-	-	-	-
300-M-Carcinoma, sebaceous cell			s	-	-	-	-	-	-	-	-	-	-	-	-
303-M-Sarcoma, undifferentiated			s	-	-	-	-	-	-	-	-	-	-	-	-
327-N-Sarcoma, histiocytic			s	-	-	-	-	-	-	-	-	-	-	-	-
Brain (10)			Status >	142	142	142	142	142	142	142	142	142	142	142	142
44-Compression			Operator >	-	-	-	-	-	-	-	-	-	-	-	-
103-Ectasia, ventricular sys			s	-	-	-	-	-	-	-	-	-	-	-	-
226-Edema			s	-	-	-	-	-	-	-	-	-	-	-	-
189-Gliosis			s	-	-	-	-	-	-	-	-	-	-	-	-
183-Hemorrhage			s	-	-	-	-	-	-	-	-	-	-	-	-
192-Mineralization			s	-	-	-	-	-	-	-	-	-	-	-	-
45-Necrosis			s	-	-	-	-	-	-	-	-	-	-	-	-
275-Inflammation, acute			s	-	-	-	-	-	-	-	-	-	-	-	-
190-Inflammation, chronic			s	-	-	-	-	-	-	-	-	-	-	-	-
224-M-Astrocytoma, malignant			s	-	-	-	-	-	-	-	-	-	-	-	-
Eyes/optic nerve (12)			Status >	142	142	142	142	142	142	142	142	142	142	142	142
89-Atrophy			Operator >	-	-	-	-	-	-	-	-	-	-	-	-
110-Atrophy, retinal, unilat			s	-	-	-	-	-	-	-	-	-	-	-	-
111-Cataract			s	-	-	-	-	-	-	-	-	-	-	-	-
90-Degen			p	-	-	-	-	-	-	-	-	-	-	-	-
144-Metaplasia, osseous, sclera			s	-	-	-	-	-	-	-	-	-	-	-	-
46-Mineralization, corneal str			s	-	-	-	-	-	-	-	-	-	-	-	-
59-Mineralization, scleral			s	-	-	-	-	-	-	-	-	-	-	-	-
121-Neovascularization, corneal			s	-	-	-	-	-	-	-	-	-	-	-	-
180-Inflammation, acute			s	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H709	6837H710	6837H711	6837H712	6837H713	6837H714
4 M 20 g/m3	Animal >	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	U2	U2	FS
Tissue/diagnosis	Death code >														
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
127-Inflammation, mixed	Operator >														
278-Inflammation, chronic	s														
216-M-Leukemia, monuc	s														
Bone, femur (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
209-New bone, endosteal	Operator >														
212-Inflammation, acute	s														
Spinal cord (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
48-Degen, white matter	Operator >														
184-Hemorrhage	s														
280-Inflammation, acute	s														
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
261-Degeneration-resp epith	Operator >														
222-Degeneration,hyal-Resp Epith s	s														
106-Metaplasia, squ-resp epith s	s							1			2				
124-Metaplasia, squ-trans epith s	s														
91-Inflammation, mixed	s							1							
49-Inflammation-nasolac duct	s							3							
107-Inflammation-resp epith	s	2													
186-Hyperplasia-resp epith	s	2													
217-M-Leukemia, monuc	s														
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
98-Degeneration-olfact epith	Operator >														
51-Degeneration,hyaline-olf epi s	s												1		
262-Degeneration-resp epith	s														
202-Degeneration, hyal-resp epith s	s										2				
210-Metaplasia, sec-olfact epith s	s														
292-Metaplasia, squ-olfact epith s	s														
312-Metaplasia, squ-resp epith	s														
92-Inflammation, mixed	s	2													
227-Hyperplasia-resp epith	s														
112-M-Carcinoma, squamous cell	s														
218-M-Leukemia, monuc	s														
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
52-Degeneration, hyal-olf epi s	Operator >														
93-Inflammation, mixed	s	1									2				
195-M-Carcinoma, squamous cell	s														
219-M-Leukemia, monuc	s														

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Group	Sex	Dosage	Animal >	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H709	6837H710	6837H711	6837H712	6837H713	6837H714
4	M	20 g/m3	Animal >	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	U2	U2	FS
Tissue/diagnosis			Animal >	6837H701	6837H702	6837H703	6837H704	6837H705	6837H706	6837H707	6837H708	6837H709	6837H710	6837H711	6837H712	6837H713	6837H714
Nose/Turbinates 4 (5)			Death code >	U2	FS	U2	FS	FS	FS	U2	FS	U2	U2	U2	U2	U2	FS
313-Degeneration-olfact epith			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
168-Degeneration, hyal-olf epi			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94-Inflammation, mixed			s	1	-	-	-	-	-	-	-	-	-	-	-	-	-
196-N-Carcinoma, squamous cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
220-M-Leukemia, monoc			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preputial gland (4)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
283-Cyst, epithelial inclusion			Operator >														
66-Ectasia			p														
128-Inflammation, chronic			s														
67-Inflammation, mixed			s														
Pancreatic LN (1)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
71-N-Leukemia, monoc			Operator >									142					
Iliac LN (2)			Status >									142					
282-Dilatation, sinusoidal			Operator >									142					
72-N-Leukemia, monoc			s									-					
Lymph node other (4)			Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
270-Dilatation, sinusoidal			Operator >									142					
169-Infiltration, histiocytic			s									-					
142-Sinus plasmacytosis			s									-					
75-N-Leukemia, monoc			s									142					
Mediastinal LN (4)			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
13-Hemorrhage			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
171-Pigmentation			s														
267-N-Sarcoma, histiocytic			s														
14-N-Leukemia, monoc			s									142					
Pituitary gland (7)			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
173-Angiectasis			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40-Cyst			s														
172-Hemorrhage			s									1					
232-Inflammation, chronic			s														
42-Hyperplasia, pars dist, fcl			s														
39-B-Adenoma, pars distalis			s														
138-M-Leukemia, monoc			s														

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Group Sex Dosage	Animal >	6837H702	6837H704	6837H706	6837H708	6837H710	6837H712	6837H714
4 M 20 g/m3	Animal >	6837H701	6837H703	6837H705	6837H707	6837H709	6837H711	6837H713
Tissue/diagnosis	Death code >	U2 FS	U2 FS	FS FS	U2 FS	U2 FS	U2 U2	U2 FS
Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M
	Operator >		MH					
			142					
181-Cyst	s							
276-Mammary tissue	p							
286-Myodegeneration	s							
281-Inflammation, mixed	s							
308-B-Fibroma								
113-B-Lipoma								
200-M-Mesothelio, mal	2=							
328-N-Sarcoma, histiocytic	-							
331-Splenic tissue, "accessory"	p							
Harderian gland (1)	Status >	M	M	M	M	M	M	M
	Operator >							
114-N-Carcinoma, squamous cell								
Thymus (2)	Status >	M	M	M	M	M	M	M
	Operator >						142	
324-Hemorrhage	s						2=	
137-M-Leukemia, monuc							-	
Mediastinum (1)	Status >	M	M	M	M	M	M	M
	Operator >							
139-N-Leukemia, monuc								
Tail (4)	Status >	M	M	M	M	M	M	M
	Operator >							
302-Cyst, epi inclusion	p							
145-Inflammation, acute	s							
174-Inflammation, mixed	s							
175-Hyperplasia/hyperkeratosis	s							
Popliteal LN (1)	Status >	M	M	M	M	M	M	M
	Operator >				142			
151-N-Leukemia, monuc					1=			
Bone, other (2)	Status >	M	M	M	M	M	M	M
	Operator >							
269-Hyperostosis	s							
228-M-Sarcoma, NOS								
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M
	Operator >							
297-M-Carcinoma, squamous cell								

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Group	Sex	Dosage	Animal >	6837H702	6837H704	6837H706	6837H708	6837H710	6837H712	6837H714
4	M	20 g/m3	Animal >	6837H701	6837H703	6837H705	6837H707	6837H709	6837H711	6837H713
		Tissue/diagnosis	Death code >	U2	FS	FS	U2	U2	U2	U2
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >							
		311-M-Mesothelio, mal	S							



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Group Sex Dosage	6837H716	6837H717	6837H718	6837H719	6837H720	6837H721	6837H722	6837H723	6837H724	6837H725	6837H726	6837H727	6837H728	6837H729
4 M 20 g/m3	U2	FS	U1	U2	U2	U2	FS	U2	FS	FS	FS	U2	FS	FS
Tissue/diagnosis	Death code	mH	mH	*H	mH	mH	mH	m	mH	mH	mH	mH	mH	mH
Parathyroid (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
235-Hyperplasia, diffuse	s													
203-Hyperplasia, focal	s													
Aorta (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
132-N-Leukemia,monuc - inv invol	p													
325-Dilatation														
Esophagus	Status >	U	U	U	U	U	U	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
95-Ulceration	s													
18-Inflammation, mixed	s	1	2	1	2	2	2	2	2	2	2	2	2	2
19-Inflammation, chronic	s		2											
16-Metaplasia, squamous	s		1											
15-Hyperplasia, epithelial	s						2	1	2					2
Salivary gland (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
225-Degen	s													
236-Inflammation, acute	s													
20-M-Leukemia, monuc														
Mandibular LN (4)	Status >	*H												
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
126-Hemorrhage	s													
118-Sinus plasmacytosis	s													
60-Hyperplasia, lymphoid	s													
21-N-Leukemia, monuc							1=	1	1	1				
Liver (17)	Status >													
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
26-Angiectasis	s		1											
160-Congestion	s													
272-Cyst	s													
99-Fatty Change	s													
158-Foci cell alter, basophilic	s													
123-Hdn	p													
22-Necrosis	s													
231-Thrombus	s											2		
23-Vaculoliz, cyto	s													
29-Inflammation, chronic	s		1											1
27-Hyperplasia, biliary	s		1											1
28-Hyperplasia, hepato, regen	s	2	1	2	2	3	2	2	4	2	2	3	2	2
122-B-Adenoma, hepatocellular	s													

Group Sex Dosage	6837H716	6837H717	6837H718	6837H719	6837H720	6837H721	6837H722	6837H723	6837H724	6837H725	6837H726	6837H727	6837H728	6837H729
4 M 20 g/m3	U2	FS	U1	U2	U2	U2	FS	U2	FS	FS	FS	U2	FS	FS
Tissue/diagnosis														
Liver (17)														
150-M-Carcinoma, hepatocellular	142	142	142	142	142	142	142	142	142	142	142	142	142	142
246-M-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
310-M-Sarcoma, undifferentiated	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-M-Leukemia, monuc	-	1	-	2	2=	-	2=	2=	2=	2=	1	2	-	1
Spleen (7)														
285-Congestion	142	142	142	142	142	142	142	142	142	142	142	142	142	142
63-Fibrosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
247-Hemorrhage	-	-	-	-	-	-	-	-	-	-	-	-	-	-
129-Necrosis	-	-	-	-	3=	-	-	-	-	-	-	-	-	-
201-M-Fibrosarc	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-M-Leukemia, monuc	-	1	-	2=	2=	-	2=	2=	2=	2=	1	2=	-	1
326-N-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kidneys (9)														
161-Cyst	142	142	142	142	142	142	142	142	142	142	142	142	142	142
248-Degen, hyaline droplet	-	-	-	-	-	-	-	-	-	-	-	-	-	-
251-Infarct	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33-Nephropathy, chronic	2	-	3	2	2	3	3=	3	3	3=	3	3	3	3
130-Pigment, tubular epithelium	-	-	-	3	-	-	-	-	-	-	-	-	-	-
274-Inflammation, acute	-	-	-	-	-	-	-	-	-	-	-	-	-	-
213-B-Adenoma, renal tubule	-	-	-	-	-	-	-	-	-	-	-	1=	-	-
191-M-Carcinoma, renal tubule	-	-	-	-	-	-	-	-	2=	-	-	-	-	-
68-M-Leukemia, monuc	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Heart (6)														
96-Degen, myocyte	142	142	142	142	142	142	142	142	142	142	142	142	142	142
116-Fibrosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206-Thrombus	-	2	-	-	-	-	-	-	-	-	-	-	-	-
279-Inflammation, acute	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34-Inflammation, focal, chronic	1	-	-	1	-	1	-	-	-	-	1	-	1	1
35-M-Leukemia, monuc	-	-	-	-	-	-	1	-	2	1	-	-	-	-
Stomach (2)														
101-Inflammation, mixed	142	142	142	142	142	142	142	142	142	142	142	142	142	142
100-Hyperplasia, sq epi	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cecum (1)														
69-N-Leukemia, monuc	142	142	A	142	142	142	142	142	142	142	142	142	142	142
	-	-	-	-	-	-	a	-	-	-	-	-	-	-

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Group Sex Dosage	6837H716	6837H717	6837H719	6837H720	6837H721	6837H723	6837H725	6837H726	6837H727	6837H729
4 M 20 g/m3	6837H716	6837H717	6837H719	6837H720	6837H721	6837H723	6837H725	6837H726	6837H727	6837H729
Tissue/diagnosis	U2	FS	U1	U2	U2	FS	FS	FS	U2	FS
Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >
Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >	Death code >
Urinary bladder (5)	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >
Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
178-Hemorrhage	s	s	4=							
193-Inflammation, mixed	s	s					4			
37-Inflammation, chronic	s	s								
61-B-Papilloma, transitional										
134-M-Leukemia, monoc										
Duodenum	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >
Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
Jejunum (1)	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >
Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
80-M-Adenocarcinoma										
Ileum (3)	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >
Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
78-Hyperplasia, lymphoid	s	s								
81-B-Fibroma										
207-N-Leukemia, monoc										
Colon (2)	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >
Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
197-Inflammation, mixed	s	s								
156-B-Leiomyoma										
Pancreas (2)	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >
Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
323-M-Carcinoma, ductal cell										
135-M-Leukemia, monoc										
Rectum	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >
Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
Adrenal glands (10)	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >	Status >
Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
164-Cyst	s	s	3							
62-Degen, cytopl vacuol	s	s						1		
194-Necrosis	s	s								
108-Thrombus	s	s	1							
277-Hyperplasia, cort, diffuse	s	s								
38-Hyperplasia, medulla, focal	p	p								
77-B-Pheochrom, bgn	1	1								
305-B-Pheochro, complex, benign										
74-M-Pheochromocytoma, malig										
57-M-Leukemia, monoc							2			

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Group Sex Dosage	6837H16	6837H17	6837H18	6837H19	6837H20	6837H21	6837H22	6837H23	6837H24	6837H25	6837H26	6837H27	6837H28	6837H29
4 M 20 g/m3	U2	FS	U1	U2	U2	U2	FS	U2	FS	FS	U2	U2	FS	FS
Tissue/diagnosis	Animal >	Animal >	Death code >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >	Animal >
Prostate (6)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
143-Atrophy	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
179-Hemorrhage	S	S	S	S	S	S	S	S	S	S	S	S	S	S
109-Mineralization	S	S	S	S	S	S	S	S	S	S	S	S	S	S
273-Hyperplasia	S	S	S	S	S	S	S	S	S	S	S	S	S	S
88-Inflammation, acute	S	S	S	S	S	S	S	S	S	S	S	S	S	S
64-Inflammation, mixed	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Epididymis (4)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
119-Atrophy	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
242-Granuloma, sperm	S	S	S	S	S	S	S	S	S	S	S	S	S	S
97-Inflammation, chronic	S	S	S	S	S	S	S	S	S	S	S	S	S	S
198-M-Mesothelio, mal	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Seminal vesicle (4)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
120-Atrophy	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
182-Dilatation	S	S	S	S	S	S	S	S	S	S	S	S	S	S
307-Hyperplasia	S	S	S	S	S	S	S	S	S	S	S	S	S	S
136-M-Leukemia, monuc	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Mesenteric LN (4)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
147-Hemorrhage	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
79-Histiocytosis, sinus	S	S	S	S	S	S	S	S	S	S	S	S	S	S
257-N-Sarcoma, histiocytic	S	S	S	S	S	S	S	S	S	S	S	S	S	S
43-N-Leukemia, monuc	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Testes (5)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
152-Atrophy	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
287-Hemorrhage	S	S	S	S	S	S	S	S	S	S	S	S	S	S
105-Hyperplasia, interst cell	S	S	S	S	S	S	S	S	S	S	S	S	S	S
54-B-Adenoma, interstitial	P	P	P	P	P	P	P	P	P	P	P	P	P	P
199-M-Mesothelioma, malign	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=	1=
Sciatic nerve (1)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
83-N-Leukemia, monuc	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
Muscle, skeletal (3)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
304-Inflammation, chronic	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >	Operator >
258-N-Sarcoma, histiocytic	S	S	S	S	S	S	S	S	S	S	S	S	S	S
271-M-Leukemia, monuc	S	S	S	S	S	S	S	S	S	S	S	S	S	S

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Group Sex Dosage	Animal >	6837H717	6837H719	6837H721	6837H723	6837H725	6837H727	6837H729
4 M 20 g/m3	Animal >	6837H716	6837H718	6837H720	6837H722	6837H724	6837H726	6837H728
Tissue/diagnosis	Death code >	U2 FS	U1 U2	U2 U2	FS U2	FS FS	U2 U2	FS FS
Mammary gland (6)	Status >		*H					
Operator >		142	142	142	142	142	142	142
284-Cyst	P	-	-	-	-	-	-	-
166-Ectasia	S	-	-	-	-	-	-	-
155-Hyperplasia, lobular	S	-	4	-	-	-	-	-
165-B-Fibroadenoma	S	-	1=	-	-	-	-	-
55-B-Fibroma	S	-	-	-	-	-	-	-
266-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
Skin (13)	Status >							
Operator >		142	142	142	142	142	142	142
229-Cyst, epith inc	P	-	-	-	-	-	-	-
140-Fibrosis	S	-	-	-	-	-	-	-
221-Hyperkeratosis	S	-	-	-	-	-	-	-
241-Necrosis	S	-	-	-	-	-	-	-
237-Inflammation, mixed	S	-	-	-	-	-	-	-
148-Inflammation, chronic	S	-	-	-	-	-	-	-
149-B-Fibroma	S	-	-	-	-	-	-	-
176-B-Keratoacanthoma	S	-	-	-	-	-	-	-
223-B-Tumor, basal cell, benign	S	-	-	-	-	-	-	-
309-B-Tumor, hair follicle, ben	S	-	-	-	-	-	-	-
300-M-Carcinoma, sebaceous cell	S	-	-	-	-	-	-	-
303-M-Sarcoma, undifferentiated	S	-	-	-	-	-	-	-
327-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
Brain (10)	Status >							
Operator >		142	142	142	142	142	142	142
44-Compression	S	-	-	-	-	-	-	-
103-Ectasia, ventricular sys	S	-	-	-	-	-	-	-
226-Edema	S	-	-	3	-	-	-	-
189-Gliosis	S	-	-	-	-	-	-	-
183-Hemorrhage	S	-	-	-	-	-	-	-
192-Mineralization	S	-	-	-	-	1=	-	-
45-Necrosis	S	-	-	-	-	-	-	-
275-Inflammation, acute	S	-	-	-	-	-	-	-
190-Inflammation, chronic	S	-	-	-	-	-	-	-
224-M-Astrocytoma, malignant	S	-	-	-	-	-	-	-
Eyes/optic nerve (12)	Status >							
Operator >		142	142	142	142	142	142	142
89-Atrophy	S	-	-	-	-	-	-	-
110-Atrophy, retinal, unilat	S	-	-	-	-	-	-	-
111-Cataract	P	-	-	-	-	-	-	-
90-Degen	S	-	-	-	-	-	-	-
144-Metaplasia, osseous, sclera	S	-	-	-	-	-	-	-
46-Mineralization, corneal str	S	-	-	-	-	-	-	-
59-Mineralization, scleral	S	-	-	-	-	-	-	-
121-Neovascularization, corneal	S	-	-	-	-	-	-	-
180-Inflammation, acute	S	-	2	-	-	-	-	-

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4 M 20 g/m3	Animal >	6837H716	6837H718	6837H720	6837H722	6837H724	6837H726	6837H728
Tissue/diagnosis	Death code >	U2	U1	U2	FS	FS	U2	FS
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142
127-Inflammation, mixed	Operator >	142	142	142	142	142	142	142
278-Inflammation, chronic	s	-	-	-	-	-	-	-
216-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Bone, femur (2)	Status >	142	142	142	142	142	142	142
209-New bone, endosteal	Operator >	142	142	142	142	142	142	142
212-Inflammation, acute	s	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142
48-Degen, white matter	Operator >	142	142	142	142	142	142	142
184-Hemorrhage	s	-	-	-	-	-	-	-
280-Inflammation, acute	s	-	-	-	-	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142
261-Degeneration-resp epith	Operator >	142	142	142	142	142	142	142
222-Degeneration,hyal-Resp Epith s	s	-	-	-	-	-	-	-
106-Metaplasia, squ-resp epith s	s	-	-	-	-	-	-	-
124-Metaplasia, squ-trans epith s	s	-	-	-	-	-	-	-
91-Inflammation, mixed	s	-	3	3	-	-	-	-
49-Inflammation-nasolac duct	s	-	3	4	-	-	-	2
107-Inflammation-resp epith	s	-	-	-	-	-	-	-
186-Hyperplasia-resp epith	s	-	-	3	-	-	-	-
217-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142
98-Degeneration-olfact epith	Operator >	142	142	142	142	142	142	142
51-Degeneration,hyaline-olf epi s	s	-	-	-	-	-	-	-
262-Degeneration-resp epith s	s	-	-	-	-	-	-	-
202-Degeneration, hyal-resp epith s	s	-	-	-	-	-	-	-
210-Metaplasia, sec-olfact epith s	s	-	-	-	-	-	-	-
292-Metaplasia, squ-olfact epith s	s	-	-	-	-	-	-	-
312-Metaplasia, squ-resp epith s	s	-	-	-	-	-	-	-
92-Inflammation, mixed	s	-	3	2	-	-	-	-
227-Hyperplasia-resp epith	s	-	2	3	-	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-
218-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
52-Degeneration, hyal-olf epi s	Operator >	142	142	142	142	142	142	142
93-Inflammation, mixed	s	-	-	1	-	2	-	-
195-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-
219-M-Leukemia, monoc	s	-	-	-	-	-	-	2

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4	M	20 g/m3	Animal >	6837H716	6837H718	6837H720	6837H721	6837H723	6837H725	6837H727	6837H729
			Death code >	U2	U1	U2	U2	U2	FS	U2	FS
			Tissue/diagnosis	U2	U2	U2	U2	U2	FS	U2	FS
				142	142	142	142	142	142	142	142
			Nose/Turbinates 4 (5)								
			Status >								
			Operator >								
			313-Degeneration-olfact epith s								
			168-Degeneration, hyal-olf epi s								
			94-Inflammation, mixed s								
			196-N-Carcinoma, squamous cell								
			220-M-Leukemia, monuc								
			Preputial gland (4)								
			Status >								
			Operator >								
			283-Cyst, epithelial inclusion p								
			66-Ectasia s								
			128-Inflammation, chronic s								
			67-Inflammation, mixed s								
			Pancreatic LN (1)								
			Status >								
			Operator >								
			71-N-Leukemia, monuc								
			Iliac LN (2)								
			Status >								
			Operator >								
			282-Dilatation, sinusoidal s								
			72-N-Leukemia, monuc								
			Lymph node other (4)								
			Status >								
			Operator >								
			270-Dilatation, sinusoidal s								
			169-Infiltration, histiocytic s								
			142-Sinus plasmacytosis s								
			75-N-Leukemia, monuc								
			Mediastinal LN (4)								
			Status >								
			Operator >								
			13-Hemorrhage s								
			171-Pigmentation s								
			267-N-Sarcoma, histiocytic								
			14-N-Leukemia, monuc								
			Pituitary gland (7)								
			Status >								
			Operator >								
			173-Angiectasis s								
			40-Cyst s								
			172-Hemorrhage s								
			232-Inflammation, chronic s								
			42-Hyperplasia, pars dist, fcl s								
			39-B-Adenoma, pars distalis								
			138-M-Leukemia, monuc								



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Group	Sex	Dosage	Animal >	6837H717	6837H719	6837H721	6837H723	6837H725	6837H727	6837H729
4	M	20 g/m3	Animal >	6837H716	6837H718	6837H720	6837H722	6837H724	6837H726	6837H728
		Tissue/diagnosis	Death code >	U2	U1	U2	FS	FS	FS	FS
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >	U2						
		311-M-Mesothelio, mal	S							



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Group Sex Dosage	Animal >	6837H732	6837H733	6837H734	6837H735	6837H736	6837H737	6837H738	6837H739	6837H740	6837H741	6837H742	6837H743	6837H744
4 M 20 g/m3	Animal >	6837H731	6837H733	6837H734	6837H735	6837H736	6837H737	6837H738	6837H739	6837H740	6837H741	6837H742	6837H743	6837H744
Tissue/diagnosis	Death code >	U2	U1	U2	U2	FS	U2	U2	FS	U2	FS	U2	U2	U2
Parathyroid (2)	Status >	m	m		*H	m					m			
235-Hyperplasia, diffuse	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
203-Hyperplasia, focal	s	-	-	-	-	-	-	-	-	-	-	-	-	-
	s	-	-	-	-	-	-	-	-	3	-	-	1	-
Aorta (2)	Status >													
132-N-Leukemia,monuc - inv invol	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
325-Dilatation	p	-	-	-	-	-	-	-	-	-	-	-	-	-
Esophagus	Status >	U	U	U	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Larynx (5)	Status >													
95-Ulceration	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
18-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-	-
19-Inflammation, chronic	s	1	2	2	-	2	1	2	2	2	2	2	2	1
16-Metaplasia, squamous	s	-	-	-	-	-	-	-	-	-	-	-	-	-
15-Hyperplasia, epithelial	s	-	-	2	-	-	-	1	-	2	1	1	1	-
Salivary gland (3)	Status >													
225-Degen	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
236-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-
20-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-	-	-	-
Mandibular LN (4)	Status >	*H												
126-Hemorrhage	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
118-Sinus plasmacytosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-
60-Hyperplasia, lymphoid	s	-	-	-	-	-	-	-	-	-	-	-	-	-
21-N-Leukemia, monuc	s	-	1	-	-	-	-	-	-	1=	-	-	-	-
Liver (17)	Status >													
26-Angiectasis	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
160-Congestion	s	-	1	2	-	-	-	-	-	2	1	-	-	-
272-Cyst	s	-	3=	-	-	-	-	-	-	-	-	-	-	-
99-Fatty Change	s	-	-	-	-	-	-	-	-	-	-	-	-	-
158-Foci cell alter, basophilic	s	-	-	-	-	-	-	-	-	-	-	-	-	-
123-Hdn	p	-	-	-	-	-	-	-	-	-	-	-	-	-
22-Necrosis	s	-	-	-	-	-	-	-	-	2	-	-	-	P
231-Thrombus	s	-	-	-	-	-	-	-	-	-	-	-	-	-
23-Vacuololiz, cyto	s	-	-	-	-	-	-	-	-	-	-	-	-	-
29-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-	-	-	-
27-Hyperplasia, biliary	s	3	2	3	1	2	2	3	2	2	2	2	3	2
28-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-	-	-	-	-	-	-
122-B-Adenoma, hepatocellular	s	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6837H732	6837H734	6837H736	6837H738	6837H740	6837H742	6837H744
4 M 20 g/m3	Animal >	6837H731	6837H733	6837H735	6837H737	6837H739	6837H741	6837H743
Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U2	U2
		2=	2=	-	2	-	2=	2=
	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
150-M-Carcinoma, hepatocellular		-	-	-	-	-	-	-
246-M-Sarcoma, histiocytic		-	-	-	-	-	-	-
310-M-Sarcoma, undifferentiated		-	-	-	-	-	-	-
24-M-Leukemia, monuc		2=	2=	-	2	-	2=	2=
	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
285-Congestion		-	-	-	-	-	-	-
63-Fibrosis		-	-	-	-	-	-	-
247-Hemorrhage		-	-	-	-	-	-	-
129-Necrosis		-	-	-	-	-	-	-
201-M-Fibrosarc		-	-	1=	-	-	-	-
30-M-Leukemia, monuc		2=	2=	-	2=	-	2=	2=
326-N-Sarcoma, histiocytic		-	-	-	-	-	-	-
	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
Kidneys (9)		142	142	142	142	142	142	142
161-Cyst		-	-	-	-	-	-	-
248-Degen, hyaline droplet		-	-	-	-	-	-	-
251-Infarct		-	-	-	-	-	-	-
33-Nephropathy, chronic		2	3	3=	3	3	3	2
130-Pigment, tubular epithelium		-	-	-	-	-	-	-
274-Inflammation, acute		-	-	-	-	-	-	-
213-B-Adenoma, renal tubule		-	-	-	-	-	-	-
191-M-Carcinoma, renal tubule		-	-	-	-	-	-	-
68-M-Leukemia, monuc		-	-	-	-	-	-	-
	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
Heart (6)		142	142	142	142	142	142	142
96-Degen, myocyte		-	1	-	-	-	-	-
116-Fibrosis		-	-	-	-	-	1	-
206-Thrombus		3=	-	-	-	-	-	-
279-Inflammation, acute		-	-	-	-	-	-	-
34-Inflammation, focal, chronic		2	-	-	-	-	1	-
35-M-Leukemia, monuc		-	-	-	-	-	1	-
	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
Stomach (2)		142	142	142	142	142	142	142
101-Inflammation, mixed		-	-	-	-	-	-	-
100-Hyperplasia, sq epi		-	-	-	-	-	-	-
	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
Cecum (1)		142	142	142	142	142	142	142
69-N-Leukemia, monuc		-	-	-	-	-	-	-

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4 M 20 g/m3	Animal >	6837H731	6837H733	6837H734	6837H735	6837H736	6837H737	6837H738	6837H739	6837H740	6837H741	6837H742	6837H743	6837H744
Tissue/diagnosis	Death code >	U2	U1	U2	U2	FS	FS	U2	FS	U2	FS	U2	U2	U2
Urinary bladder (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
178-Hemorrhage	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
193-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-	-
37-Inflammation, chronic	s	-	-	-	-	-	-	1	-	-	1	-	-	-
61-B-Papilloma, transitional		-	-	-	-	-	-	-	-	-	-	-	-	-
134-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-
Duodenum	Status >	U	A	U	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Jejunum (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
80-M-Adenocarcinoma	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
Ileum (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
78-Hyperplasia, lymphoid	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
81-B-Fibroma	s	-	-	-	-	-	-	-	-	-	-	-	-	-
207-N-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-
Colon (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
197-Inflammation, mixed	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
156-B-Leiomyoma	s	-	-	-	-	-	-	-	-	-	-	-	-	-
Pancreas (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
323-M-Carcinoma, ductal cell	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
135-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-
Rectum	Status >	U	Ua	U	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
Adrenal glands (10)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
164-Cyst	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
62-Degen, cytopl vacuol	s	-	-	-	-	-	1	-	-	-	-	-	-	-
194-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-
108-Thrombus	s	-	-	1	-	-	-	-	-	-	-	-	2	-
277-Hyperplasia, cort, diffuse	s	-	-	-	-	-	-	-	-	-	-	-	-	-
38-Hyperplasia, medulla, focal	p	-	-	-	-	-	-	P	-	-	-	-	-	P
77-B-Pheochrom, bgn		-	-	-	-	-	1	-	-	-	-	-	-	-
305-B-Pheochro, complex, benign		-	-	-	-	-	-	-	-	-	-	-	-	-
74-M-Pheochromocytoma, malig		-	-	-	-	-	-	-	-	-	-	-	-	-
57-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6837H732	6837H734	6837H736	6837H738	6837H740	6837H742	6837H744
4 M 20 g/m3	Animal >	6837H731	6837H733	6837H735	6837H737	6837H739	6837H741	6837H743
Tissue/diagnosis	Death code >	U2	U1	FS	U2	FS	U2	U2
Prostate (6)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
143-Atrophy	S	-	-	-	-	-	-	-
179-Hemorrhage	S	-	-	-	-	-	-	-
109-Mineralization	S	-	-	-	-	-	-	-
273-Hyperplasia	S	-	-	-	-	-	-	-
88-Inflammation, acute	S	-	-	-	-	-	-	-
64-Inflammation, mixed	S	-	2	-	3	-	-	-
Epididymis (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
119-Atrophy	S	-	-	2=	-	-	-	-
242-Granuloma, sperm	S	-	-	-	-	-	-	-
97-Inflammation, chronic	S	-	-	-	-	-	-	-
198-M-Mesothelio, mal	S	-	-	-	-	-	-	-
Seminal vesicle (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
120-Atrophy	S	-	2=	2	-	-	2	-
182-Dilatation	S	-	-	-	-	-	-	-
307-Hyperplasia	S	-	-	-	-	-	-	-
136-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
147-Hemorrhage	S	-	-	-	-	-	-	-
79-Histiocytosis, sinus	S	-	-	-	-	-	-	-
257-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
43-N-Leukemia, monuc	S	-	-	-	-	1	-	-
Testes (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
152-Atrophy	S	-	-	-	4=	-	4=	-
287-Hemorrhage	S	-	-	-	-	-	-	-
105-Hyperplasia, interst cell	P	-	-	-	-	-	-	P
54-B-Adenoma, interstitial	P	1=	1=	1=	1=	1=	1=	1=
199-M-Mesothelioma, malig	P	-	-	1	-	-	-	-
Sciatic nerve (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
83-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Muscle, skeletal (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
304-Inflammation, chronic	S	-	-	-	-	-	-	-
258-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
271-M-Leukemia, monuc	S	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6837H732	6837H733	6837H734	6837H735	6837H736	6837H737	6837H738	6837H740	6837H741	6837H742	6837H743	6837H744
4	M	20 g/m3	Animal >	6837H731	6837H733	6837H734	6837H735	6837H736	6837H737	6837H738	6837H740	6837H741	6837H742	6837H743	6837H744
			Death code >	U2	U1	U2	FS	FS	U2	U2	U2	FS	U2	U2	U2
			Tissue/diagnosis												
			Mammary gland (6)				H								*H
			Operator >	142	142	142	142	142	142	142	142	142	142	142	142
			Status >												
			Operator >												
			284-Cyst												
			166-Ectasia												
			155-Hyperplasia, lobular				1								
			165-B-Fibroadenoma												
			55-B-Fibroma												
			266-N-Sarcoma, histiocytic												
			Skin (13)												
			Operator >	142	142	142	142	142	142	142	142	142	142	142	142
			Status >												
			Operator >												
			229-Cyst, epith inc												
			140-Fibrosis												
			221-Hyperkeratosis												
			241-Necrosis												
			237-Inflammation, mixed												
			148-Inflammation, chronic												
			149-B-Fibroma												
			176-B-Keratoacanthoma												
			223-B-Tumor, basal cell, benign												
			309-B-Tumor, hair follicle, ben												
			300-M-Carcinoma, sebaceous cell												
			303-M-Sarcoma, undifferentiated												
			327-N-Sarcoma, histiocytic												
			Brain (10)												
			Operator >	142	142	142	142	142	142	142	142	142	142	142	142
			Status >												
			Operator >												
			44-Compression												
			103-Ectasia, ventricular sys				3=								
			226-Edema												
			189-Gliosis												
			183-Hemorrhage												
			192-Mineralization												
			45-Necrosis				2=								
			275-Inflammation, acute												
			190-Inflammation, chronic												
			224-M-Astrocytoma, malignant												
			Eyes/optic nerve (12)												
			Operator >	142	142	142	142	142	142	142	142	142	142	142	142
			Status >												
			Operator >												
			89-Atrophy												
			110-Atrophy, retinal, unilat												
			111-Cataract												
			90-Degen												
			144-Metaplasia, osseous, sclera												
			46-Mineralization, corneal str												
			59-Mineralization, scleral												
			121-Neovascularization, corneal												
			180-Inflammation, acute												

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4 M 20 g/m3	Animal >	6837H731	6837H733	6837H734	6837H735	6837H736	6837H737	6837H738	6837H739	6837H740	6837H741	6837H742	6837H743	6837H744
Tissue/diagnosis	Death code >	U2	U2	U2	FS	FS	U2	U2	FS	U2	U2	U2	U2	U2
Eyes/optic nerve (12)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
127-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-	-
278-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-	-	-	-
216-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-	-	-	-
Bone, femur (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
209-New bone, endosteal	s	-	-	-	-	-	-	-	-	-	-	-	-	-
212-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
48-Degen, white matter	s	-	-	-	-	-	-	-	-	-	-	-	-	-
184-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-
280-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 1 (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
261-Degeneration-resp epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
222-Degeneration,hyal-Resp Epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
106-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
124-Metaplasia, squ-trans epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
91-Inflammation, mixed	s	-	-	-	-	-	2	-	-	-	-	-	1	-
49-Inflammation-nasolac duct	s	3	-	-	-	-	-	-	-	-	-	-	-	3
107-Inflammation-resp epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
186-Hyperplasia-resp epith	s	-	-	-	-	-	3	-	-	-	-	-	-	-
217-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 2 (11)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
98-Degeneration-olfact epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
51-Degeneration,hyaline-olf epi	s	-	-	-	-	1	-	-	-	-	-	-	3	-
262-Degeneration-resp epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
202-Degeneration, hyal-resp epith	s	-	-	-	-	-	-	-	-	-	-	-	-	2
210-Metaplasia, sec-olfact epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
292-Metaplasia, squ-olfact epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
312-Metaplasia, squ-resp epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
92-Inflammation, mixed	s	-	-	-	-	-	2	-	-	-	-	-	-	-
227-Hyperplasia-resp epith	s	-	-	-	-	-	-	-	-	-	-	-	-	-
112-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-	-	-	-	-	-	-
218-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
52-Degeneration, hyal-olf epi	s	-	-	-	-	-	-	-	-	-	-	-	-	1
93-Inflammation, mixed	s	-	-	-	-	2	-	-	-	-	-	-	-	-
195-M-Carcinoma, squamous cell	s	-	-	-	-	-	-	-	-	-	-	-	-	-
219-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6837H732	6837H733	6837H734	6837H735	6837H736	6837H737	6837H738	6837H739	6837H740	6837H741	6837H742	6837H743	6837H744	6837H745
4	M	20 g/m3	Animal >	U2	U1	U2	U2	FS	U2	U2	FS	U2	U2	U2	U2	U2	U2
		Tissue/diagnosis	Animal >	U2	U2	U2	U2	FS	U2	U2	FS	U2	U2	U2	U2	U2	U2
			Death code >														
		Nose/Turbinates 4 (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
		313-Degeneration-olfact epith	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		168-Degeneration, hyal-olf epi	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		94-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		196-N-Carcinoma, squamous cell		-	-	-	-	-	-	-	-	-	-	-	-	-	-
		220-M-Leukemia, monoc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Preputial gland (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
		283-Cyst, epithelial inclusion	Operator >					142									
		66-Ectasia	s					3=									
		128-Inflammation, chronic	s					-									
		67-Inflammation, mixed	s					2									
		Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
		71-N-Leukemia, monoc	Operator >														
		Iliac LN (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
		282-Dilatation, sinusoidal	Operator >					142									
		72-N-Leukemia, monoc	s					-									
		Lymph node other (4)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
		270-Dilatation, sinusoidal	Operator >					142									
		169-Infiltration, histiocytic	s					-									
		142-Sinus plasmacytosis	s					-									
		75-N-Leukemia, monoc						1=									
		Mediastinal LN (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
		13-Hemorrhage	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		171-Pigmentation	s					-									
		267-N-Sarcoma, histiocytic	s					-									
		14-N-Leukemia, monoc						-									
		Pituitary gland (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
		173-Angiectasis	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		40-Cyst	s					-									
		172-Hemorrhage	s					-									
		232-Inflammation, chronic	s					-									
		42-Hyperplasia, pars dist, fcl	s					-									
		39-B-Adenoma, pars distalis						-									
		138-M-Leukemia, monoc						-									

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4 M 20 g/m3	Animal >	6837H731	6837H733	6837H734	6837H735	6837H736	6837H737	6837H738	6837H740	6837H741	6837H742	6837H744
Tissue/diagnosis	Death code >	U2	U2	U2	FS	FS	U2	U2	U2	U2	U2	U2
Tiss.not specifi (9)	Status >	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >					142					142	
181-Cyst	s											
276-Mammary tissue	p											
286-Myodegeneration	s											
281-Inflammation, mixed	s											
308-B-Fibroma												
113-B-Lipoma												
200-M-Mesothelio, mal					1=							
328-N-Sarcoma, histiocytic												
331-Splenic tissue, "accessory"	p											
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >											
114-N-Carcinoma, squamous cell												
Thymus (2)	Status >	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >											
324-Hemorrhage	s											
137-M-Leukemia, monuc												
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >											
139-N-Leukemia, monuc												
Tail (4)	Status >	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >											
302-Cyst, epi inclusion	p											
145-Inflammation, acute	s											
174-Inflammation, mixed	s											
175-Hyperplasia/hyperkeratosis	s											
Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >											
151-N-Leukemia, monuc												
Bone, other (2)	Status >	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >											
269-Hyperostosis	s											
228-M-Sarcoma, NOS												
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >											
297-M-Carcinoma, squamous cell												

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4	M	20 g/m3	Animal >	6837H733	6837H737	6837H739	6837H741	6837H743	6837H745	6837H745
		Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U2	U2
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		301-Inflammation, mixed	Operator >							
		311-M-Mesothelio, mal	S							
									142	

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Group Sex Dosage	Animal >	6837H747	6837H749
4 M 20 g/m3	Animal >	6837H746	6837H748
Tissue/diagnosis	Death code >	U2 FS U2	FS FS U2
Lungs (17)	Status >		H
4-Alveolar histiocytosis	Operator >	142 142 142 142	142 142 142
299-Autolysis, marked	s	1=	-
3-Congestion	p	-	-
82-Fibrosis, focal	s	-	-
154-Hemorrhage	s	-	-
306-Metaplasia, squam - alv epi	s	-	-
233-Mineralization, uremic	s	-	-
298-Cyst, squamous, keratiniz	p	-	-
187-Inflammation, acute	s	-	-
84-Inflammation, mixed	s	-	-
214-Inflammation, granulomatous	s	-	3
1-Hyperplasia, alv epi, focal	s	-	-
5-Hyperplasia, alv epi, wdsprd	s	-	-
104-B-Adenoma, bronchiolo-alv		-	-
240-N-Sarcoma, histiocytic		-	-
2-N-Leukemia,monuc - cap invol	2	2=	2=
131-N-Leukemia,monuc - inv invol	-	-	-
Trachea (6)	Status >		
188-Metaplasia, squamous	Operator >	142 142 142 142	142 142 142
7-Inflammation, acute	s	-	-
85-Inflammation, mixed	s	-	-
177-Inflammation, chronic	s	-	-
86-Hyperplasia, epithelial	s	-	-
215-N-Leukemia, mononuclear		-	-
Bronchial (TBLN) (3)	Status >		
8-Hemorrhage	Operator >	142 142 142 142	142 142 142
243-N-Sarcoma, histiocytic	s	-	-
9-N-Leukemia, monuc	1=	-	1=
Thyroid glands (7)	Status >		
115-Cyst, follicular	Operator >	142 142 142 142	142 142 142
73-Hyperplasia, C-cell, focal	p	-	-
153-Hyperplasia, follicular cell	s	2	1
10-B-Adenoma, C-cell		-	-
87-B-Adenoma, follicular cell		-	-
204-M-Carcinoma, C-cell		-	-
125-M-Carcinoma, follicular cell		-	-

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4 M 20 g/m3	Animal >	6837H746	6837H748	6837H750
Tissue/diagnosis	Death code >	U2 FS U2	FS U2	FS U2
Parathyroid (2)	Status >		mH	
	Operator >	142	142	142
235-Hyperplasia, diffuse	s	-	-	-
203-Hyperplasia, focal	s	-	-	-
Aorta (2)	Status >			
	Operator >	142	142	142
132-N-Leukemia,monuc - inv invol	p	-	-	-
325-Dilatation				
Esophagus	Status >	U	U	U
	Operator >	142	142	142
Larynx (5)	Status >			
	Operator >	142	142	142
95-Ulceration	s	-	-	-
18-Inflammation, mixed	s	2	2	2
19-Inflammation, chronic	s	-	1	-
16-Metaplasia, squamous	s	-	-	-
15-Hyperplasia, epithelial	s	1	2	1
Salivary gland (3)	Status >			
	Operator >	142	142	142
225-Degen	s	-	-	-
236-Inflammation, acute	s	-	-	-
20-M-Leukemia, monuc		-	-	1
Mandibular LN (4)	Status >			
	Operator >	142	142	142
126-Hemorrhage	s	-	-	-
118-Sinus plasmacytosis	s	-	-	-
60-Hyperplasia, lymphoid	s	-	-	-
21-N-Leukemia, monuc		-	-	-
Liver (17)	Status >			
	Operator >	142	142	142
26-Angiectasis	s	-	1	-
160-Congestion	s	-	-	-
272-Cyst	s	-	-	-
99-Fatty Change	s	-	-	-
158-Foci cell alter, basophilic	s	-	-	-
123-Hdn	p	-	-	-
22-Necrosis	s	-	-	-
231-Thrombus	s	-	-	2
23-Vacuoliz, cyto	s	-	-	-
29-Inflammation, chronic	s	-	-	1
27-Hyperplasia, biliary	s	3	2	3
28-Hyperplasia, hepato, regen	s	-	-	-
122-B-Adenoma, hepatocellular		-	1=	-

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Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6837H747	6837H748	6837H749
4 M 20 g/m3	Animal >	6837H746	6837H748	6837H750
Tissue/diagnosis	Death code >	U2 FS U2	U2 FS U2	FS U2
<b>Liver (17)</b>	Status >			
150-M-Carcinoma, hepatocellular	Operator >	142 142 142 142	142 142 142 142	142 142 142 142
246-M-Sarcoma, histiocytic	s	-	-	-
310-M-Sarcoma, undifferentiated	s	-	-	-
24-M-Leukemia, monuc	s	2=	2=	2
<b>Spleen (7)</b>	Status >			
285-Congestion	Operator >	142 142 142 142	142 142 142 142	142 142 142 142
63-Fibrosis	s	-	-	-
247-Hemorrhage	s	-	-	-
129-Necrosis	s	-	-	-
201-M-Fibrosarc		-	-	-
30-M-Leukemia, monuc		2=	2=	2=
326-N-Sarcoma, histiocytic		-	-	-
<b>Kidneys (9)</b>	Status >			
161-Cyst	Operator >	142 142 142 142	142 142 142 142	142 142 142 142
248-Degen, hyaline droplet	s	-	-	-
251-Infarct	s	-	-	-
33-Nephropathy, chronic	s	3	3	3
130-Pigment, tubular epithelium	s	4	-	-
274-Inflammation, acute	s	-	-	-
213-B-Adenoma, renal tubule		1=	-	-
191-M-Carcinoma, renal tubule		-	-	-
68-M-Leukemia, monuc		-	-	-
<b>Heart (6)</b>	Status >			
96-Degen, myocyte	Operator >	142 142 142 142	142 142 142 142	142 142 142 142
116-Fibrosis	s	-	-	-
206-Thrombus	s	2=	-	-
279-Inflammation, acute	s	-	-	-
34-Inflammation, focal, chronic	s	-	1	1
35-M-Leukemia, monuc		-	-	-
<b>Stomach (2)</b>	Status >			
101-Inflammation, mixed	Operator >	142 142 142 142	142 142 142 142	142 142 142 142
100-Hyperplasia, sq epi	s	-	-	-
<b>Cecum (1)</b>	Status >			
69-N-Leukemia, monuc	Operator >	142 142 142 142	142 142 142 142	142 142 142 142

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Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6837H747	6837H749
4 M 20 g/m3	Animal >	6837H746	6837H750
Tissue/diagnosis	Death code >	U2 FS U2	FS U2
Urinary bladder (5)	Status >	142	142
	Operator >	142	142
178-Hemorrhage	s	-	-
193-Inflammation, mixed	s	-	-
37-Inflammation, chronic	s	-	-
61-B-Papilloma, transitional		-	-
134-M-Leukemia, monoc		-	-
Duodenum	Status >	U	U
	Operator >	142 142 142 142	142 142 142 142
Jejunum (1)	Status >	142	142
80-M-Adenocarcinoma	Operator >	-	-
Ileum (3)	Status >	142	142
	Operator >	142 142 142 142	142 142 142 142
78-Hyperplasia, lymphoid	s	-	-
81-B-Fibroma		-	-
207-N-Leukemia, monoc		-	-
Colon (2)	Status >	142	142
	Operator >	-	-
197-Inflammation, mixed	s	-	-
156-B-Leiomyoma		-	-
Pancreas (2)	Status >	142	142
	Operator >	142 142 142 142	142 142 142 142
323-M-Carcinoma, ductal cell		-	-
135-M-Leukemia, monoc		-	-
Rectum	Status >	U	U
	Operator >	142 142 142 142	142 142 142 142
Adrenal glands (10)	Status >	142	142
	Operator >	-	-
164-Cyst	s	-	-
62-Degen, cytopl vacuol	s	-	-
194-Necrosis	s	-	-
108-Thrombus	s	-	-
277-Hyperplasia, cort, diffuse	s	-	-
38-Hyperplasia, medulla, focal	p	-	-
77-B-Pheochrom, bgn		1	-
305-B-Pheochro, complex, benign		-	-
74-M-Pheochromocytoma, malign		1=	-
57-M-Leukemia, monoc		-	-

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Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6837H747	6837H749
4 M 20 g/m3	Animal >	6837H746	6837H750
Tissue/diagnosis	Death code >	U2 FS U2	FS U2
Prostate (6)	Status >		
	Operator >	142 142 142 142 142 142	142 142 142 142
143-Atrophy	S	-	-
179-Hemorrhage	S	-	-
109-Mineralization	S	-	-
273-Hyperplasia	S	-	-
88-Inflammation, acute	S	-	-
64-Inflammation, mixed	S	-	-
Epididymis (4)	Status >		
	Operator >	142 142 142 142	142 142 142 142
119-Atrophy	S	-	-
242-Granuloma, sperm	S	-	-
97-Inflammation, chronic	S	-	-
198-M-Mesothelio, mal	S	-	-
Seminal vesicle (4)	Status >		
	Operator >	142 142 142 142	142 142 142 142
120-Atrophy	S	-	-
182-Dilatation	S	2=	2=
307-Hyperplasia	S	-	-
136-M-Leukemia, monuc	S	-	-
Mesenteric LN (4)	Status >		
	Operator >	142 142 142 142	142 142 142 142
147-Hemorrhage	S	-	-
79-Histiocytosis, sinus	S	-	-
257-N-Sarcoma, histiocytic	S	-	-
43-N-Leukemia, monuc	S	-	-
Testes (5)	Status >		
	Operator >	142 142 142 142 142	142 142 142 142
152-Atrophy	S	-	-
287-Hemorrhage	S	-	-
105-Hyperplasia, interst cell	P	-	-
54-B-Adenoma, interstitial	P	1=	1=
199-M-Mesothelioma, malig	P	-	-
Sciatic nerve (1)	Status >		
	Operator >	142 142 142 142	142 142 142 142
83-N-Leukemia, monuc	S	-	-
Muscle, skeletal (3)	Status >		
	Operator >	142 142 142 142	142 142 142 142
304-Inflammation, chronic	S	-	-
258-N-Sarcoma, histiocytic	S	-	-
271-M-Leukemia, monuc	S	-	-



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Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6837H747	6837H749
4 M 20 g/m3	Animal >	6837H746	6837H750
Tissue/diagnosis	Death code >	U2 FS U2	FS U2
Eyes/optic nerve (12)	Status >	142	142
Operator >	Operator >	142	142
127-Inflammation, mixed	s	-	-
278-Inflammation, chronic	s	-	-
216-M-Leukemia, monuc	s	-	-
Bone, femur (2)	Status >	142	142
Operator >	Operator >	142	142
209-New bone, endosteal	s	-	-
212-Inflammation, acute	s	-	-
Spinal cord (3)	Status >	142	142
Operator >	Operator >	142	142
48-Degen, white matter	s	-	-
184-Hemorrhage	s	-	-
280-Inflammation, acute	s	-	-
Nose/Turbinates 1 (9)	Status >	142	142
Operator >	Operator >	142	142
261-Degeneration-resp epith	s	-	-
222-Degeneration,hyal-Resp Epith	s	-	-
106-Metaplasia, squ-resp epith	s	-	-
124-Metaplasia, squ-trans epith	s	-	-
91-Inflammation, mixed	s	-	-
49-Inflammation-nasolac duct	s	2	3
107-Inflammation-resp epith	s	-	-
186-Hyperplasia-resp epith	s	-	-
217-M-Leukemia, monuc	s	-	-
Nose/Turbinates 2 (11)	Status >	142	142
Operator >	Operator >	142	142
98-Degeneration-olfact epith	s	-	-
51-Degeneration,hyaline-olf epi	s	-	2
262-Degeneration-resp epith	s	-	-
202-Degeneration, hyal-resp epith	s	-	-
210-Metaplasia, sec-olfact epith	s	-	-
292-Metaplasia, squ-olfact epith	s	-	-
312-Metaplasia, squ-resp epith	s	-	-
92-Inflammation, mixed	s	2	-
227-Hyperplasia-resp epith	s	3	-
112-M-Carcinoma, squamous cell	s	-	-
218-M-Leukemia, monuc	s	-	-
Nose/Turbinates 3 (4)	Status >	142	142
Operator >	Operator >	142	142
52-Degeneration, hyal-olf epi	s	-	-
93-Inflammation, mixed	s	-	-
195-M-Carcinoma, squamous cell	s	-	-
219-M-Leukemia, monuc	s	-	-

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Lovelace Respiratory  
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Rat/F344/N

Group	Sex	Dosage	Animal >	6837H747	6837H749	6837H750
4	M	20 g/m3	Animal >	6837H746	6837H748	6837H750
		Tissue/diagnosis	Death code >	U2 FS U2	U2 FS U2	FS U2
<hr/>						
Nose/Turbinates 4 (5)						
			Status >	142	142	142
		Operator >				
313		Degeneration-olfact epith	s	-	-	-
168		Degeneration, hyal-olf epi	s	-	-	-
94		Inflammation, mixed	s	1	-	-
196		N-Carcinoma, squamous cell		-	-	-
220		M-Leukemia, monoc		-	-	-
<hr/>						
Preputial gland (4)						
			Status >	M	M	M
		Operator >		142		
283		Cyst, epithelial inclusion	p	-	-	-
66		Ectasia	s	3=		
128		Inflammation, chronic	s	1		
67		Inflammation, mixed	s	-		
<hr/>						
Pancreatic LN (1)						
			Status >	M	M	M
		Operator >				142
						1=
<hr/>						
71-N-Leukemia, monoc						
<hr/>						
Iliac LN (2)						
			Status >	M	M	M
		Operator >				
282		Dilatation, sinusoidal	s			
72		N-Leukemia, monoc				
<hr/>						
Lymph node other (4)						
			Status >	M	M	M
		Operator >				
270		Dilatation, sinusoidal	s			
169		Infiltration, histiocytic	s			
142		Sinus plasmacytosis	s			
75		N-Leukemia, monoc				
<hr/>						
Mediastinal LN (4)						
			Status >	142	142	142
		Operator >				
13		Hemorrhage	s	-	-	-
171		Pigmentation	s	-	-	-
267		N-Sarcoma, histiocytic		-	-	-
14		N-Leukemia, monoc		-	-	1=
<hr/>						
Pituitary gland (7)						
			Status >	142	142	142
		Operator >		2=		
173		Angiectasis	s	-	-	-
40		Cyst	s	-	-	-
172		Hemorrhage	s	-	-	-
232		Inflammation, chronic	s	-	-	1
42		Hyperplasia, pars dist, fcl	s	3=	-	-
39		B-Adenoma, pars distalis		-	-	-
138		M-Leukemia, monoc		-	-	-

Raw Data Listing for Microscopic Tissue Evaluations  
Study Number:FY01013M

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6837H747	6837H749
4 M 20 g/m3	Animal >	6837H746	6837H750
Tissue/diagnosis	Death code >	U2 FS U2	FS U2
Tiss.not specifi (9)	Status >	M M M M M	M M M
Operator >	Operator >		
181-Cyst	s		
276-Mammary tissue	p		
286-Myodegeneration	s		
281-Inflammation, mixed	s		
308-B-Fibroma			
113-B-Lipoma			
200-M-Mesothelio, mal			
328-N-Sarcoma, histiocytic			
331-Splenic tissue, "accessory"	p		
Harderian gland (1)	Status >	M M M M M	M M M
Operator >	Operator >		
114-N-Carcinoma, squamous cell			
Thymus (2)	Status >	M M M M M	M M M
Operator >	Operator >		
324-Hemorrhage	s		
137-M-Leukemia, monuc			
Mediastinum (1)	Status >	M M M M M	M M M
Operator >	Operator >		
139-N-Leukemia, monuc			
Tail (4)	Status >	M M M M M	M M M
Operator >	Operator >		
302-Cyst, epi inclusion	p		
145-Inflammation, acute	s		
174-Inflammation, mixed	s		
175-Hyperplasia/hyperkeratosis	s		
Popliteal LN (1)	Status >	M M M M M	M M M
Operator >	Operator >		
151-N-Leukemia, monuc			
Bone, other (2)	Status >	M M M M M	M M M
Operator >	Operator >		
269-Hyperostosis	s		
228-M-Sarcoma, NOS			
Zymbal's gland (1)	Status >	M M M M M	M M M
Operator >	Operator >		
297-M-Carcinoma, squamous cell			

Raw Data Listing for Microscopic Tissue Evaluations  
Study Number: FY01013M

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group	Sex	Dosage	Animal >	6837H747	6837H749
4	M	20 g/m3	Animal >	6837H746	6837H750
Tissue/diagnosis			Death code >	U2 FS U2	FS U2
Mesentery (2)			Status >	M M M	M M M
			Operator >		

301-Inflammation, mixed  
311-M-Mesothelio, mal

SYMBOLS, ABBREVIATIONS, AND CODES USED IN THE "MICROSCOPIC EVALUATION OF TISSUES"

\*\*\* DISTRIBUTION OF FINDINGS \*\*\*

" " NO PARENTHESIS = NOT SPECIFIED  
" M " M = FINDING MULTI-FOCAL  
" F " F = FINDING FOCAL  
" D " D = FINDING DIFFUSE

\*\*\* GRADES FOR DEFINING SEVERITY (DEGREE) OR AMOUNT OF CHANGE \*\*\*

" NON-NEOPLASMS " " NEOPLASMS "  
" 1 " = MINIMUM " 1 " = INCIDENTAL  
" 2 " = MILD " 2 " = CONTRIBUTORY  
" 3 " = MODERATE " 3 " = FATAL  
" 4 " = MARKED

\*\*\* OTHER SYMBOLS \*\*\*

" U " = ORGAN/TISSUE HISTOLOGICALLY NOT REMARKABLE  
" M " = MISCELLANEOUS TISSUE  
" - " = FINDING NOT PRESENT OR OBSERVED  
" P " = FINDINGS PRESENT OR CONFIRMED (GRADING INAPPROPRIATE)  
" \* " = TISSUE NOT AVAILABLE FOR MICROSCOPIC EXAMINATION  
" H " = SPECIAL HISTOLOGICAL COMMENTS ON TISSUE  
" A " = TISSUE NOT READABLE - AUTOLYTIC  
" a " = TISSUE READABLE - AUTOLYTIC  
" m " = ONE OF PAIRED ORGANS MISSING  
" I " = TISSUE INADEQUATE AND UNREADABLE

\*\*\* NEOPLASTIC FINDINGS \*\*\*

" B- " = PRIMARY, BENIGN NEOPLASM IN ORGAN/TISSUE  
" M- " = PRIMARY, MALIGNANT NEOPLASM IN ORGAN/TISSUE  
" X- " = MALIGNANT NEOPLASM - TISSUE OR ORIGIN UNKNOWN  
" N- " = METASTATIC NEOPLASM WITHIN ORGAN/TISSUE  
" I- " = LOCALLY INVASIVE NEOPLASM FROM NEARBY ORGAN  
" + " = PRESENCE OF A NEOPLASTIC FINDING IN ORGAN/TISSUE  
" +AA " = SECONDARY NEOPLASM FROM ORGAN/TISSUE INDICATED BY  
TWO LETTER ABBREVIATION (FOR EXAMPLE, LI=LIVER)  
" +N " = MORE THAN ONE NEOPLASM OF THE SAME TYPE IN THE  
SAME ORGAN, N EQUALS THE NUMBER OBSERVED  
" / " = NEOPLASM PRESENT AND RELATED TO ANIMAL DEATH

\*\*\* ANIMAL DEATH CODES \*\*\*

" Un " = USER DEFINED UNSCHEDULED DEATH CODES  
" I1 " = INTERIM SACRIFICE #1  
" I2 " = INTERIM SACRIFICE #2  
" I3 " = INTERIM SACRIFICE #3  
" I4 " = INTERIM SACRIFICE #4  
" I5 " = INTERIM SACRIFICE #5  
" FS " = FINAL SACRIFICE  
" R " = RE-CUT OF TISSUE REQUESTED

M-7 Individual Animal Report of Correlated Gross and Microscopic Diagnoses

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Individual Animal Report of Correlated Gross and Microscopic Diagnoses  
 Study Number: FY01013M  
 Printed: 10-Jul-06  
 Page: 1

Animal: 6831E401	Sex: Male	Group: 1	Dose Level: 0 g/m3
Day of death: 668 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 350.8	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Liver	Thick, Red, +2	M-Leukemia, mononuclear, Contributory.	
Spleen	Enlarged, 68-89 mm, Dark Red, +2	M-Leukemia, mononuclear, Contributory.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Lungs	Discolored, 0-2 mm, Red, +2/ Multifocus Round	N-Leukemia, mononuclear - capillary involvement, Incidental.	
Animal: 6831E402	Sex: Male	Group: 1	Dose Level: 0 g/m3
Day of death: 569 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 375.6	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen	Enlarged, 90-112 mm, Dark Red, +4/ Single	M-Leukemia, mononuclear, Contributory.	
Testes	Mass, 6-10 mm, Mottled, Granular, +3/ Single Irregular	B-Adenoma, interstitial cell, Incidental.	
Lungs	Discolored, All Lobes, 0-2 mm, Dark Red, Soft, +2/ Foci/Multiple Round	Hemorrhage, Minimal.	
	Discolored, All Lobes, 0-2 mm, Tan, Soft, +2/ Foci Multiple Irregular	Hyperplasia, alveolar epithelial, focal, Mild.	
Animal: 6831E403	Sex: Male	Group: 1	Dose Level: 0 g/m3
Day of death: 609 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 276.1	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, 0-2 mm, Dark Red/ Round, Multiple	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen	Enlarged, 90-112 mm, +2/ diffuse	M-Leukemia, mononuclear, Contributory.	
	Enlarged, 21-45 mm, Dark, +2/ Dark, Irregular	Necrosis, Marked.	
Testes	Mass, 6-10 mm, Mottled, Soft/ Irregular, Patchy	B-Adenoma, interstitial cell, Incidental.	
Pituitary gland	Discolored, 0-2 mm, Dark, Firm, +1	Hemorrhage, Mild.	
Animal: 6831E404	Sex: Male	Group: 1	Dose Level: 0 g/m3
Day of death: 646 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 494.2	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	Discolored, Patchy, Mottled, +1/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Mammary gland	Mass, Right, 46-67 mm, Firm, +4/ Right 1-2	B-Fibroma, Incidental.	

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Animal: 6831E405	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 661 Dosing phase				Terminal body weight (g): 311.3
Tissue	Gross observations / Comments			Correlated microscopic observations
Bronchial (TBLN)	. Enlarged, 6-10 mm, +1			N-Leukemia, mononuclear, Incidental.
Spleen	. . . . . Enlarged, 68-89 mm, +2			M-Leukemia, mononuclear, Contributory.
Testes	. . . . . Discolored, Patchy, Mottled, +2/ Irregular			B-Adenoma, interstitial cell, Incidental.
Liver	. . . . . Discolored, Diffuse, Mottled, +1			M-Leukemia, mononuclear, Contributory.
Animal: 6831E406	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 721 Dosing phase				Terminal body weight (g): 224.4
Tissue	Gross observations / Comments			Correlated microscopic observations
Tiss.not specifi	. Mass, Abdomen, 21-45 mm, Mottled, +3/ Oval			B-Lipoma, Incidental.
	Perforation, Maxillary, Brown, +3/ Tooth			(Nose/Turbinatate 2) M-Carcinoma, squamous cell, Contributory.
Testes	. . . . . Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Harderian gland	. . Enlarged, Left, 11-15 mm, Pale, +3/ Oval			N-Carcinoma, squamous cell, Contributory Metastatic from Nose/Turbinatate 2.
Animal: 6831E407	Sex: Male	Status: Final phase sacrifice	Group: 1	Dose level: 0 g/m3
Day of death: 736 Dosing phase				Terminal body weight (g): 403.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Mandibular LN	. . Enlarged, 3-5 mm, +2/ Multifocus Irregular			Sinus plasmacytosis, Moderate.
Testes	. . . . . Discolored, Right, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Pituitary gland	. . Nodule, 3-5 mm, Mottled Red, Firm, +3/ Irregular			B-Adenoma, pars distalis, Incidental.
Animal: 6831E409	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 631 Dosing phase				Terminal body weight (g): 300.4
Tissue	Gross observations / Comments			Correlated microscopic observations
Brain	. . . . . Deformity, 6-10 mm, +2			Compression, Moderate.
Pituitary gland	. . Mass, 6-10 mm, Dark Red, Soft			B-Adenoma, pars distalis, Incidental.
Urinary bladder	. . Mass, 11-15 mm, Pale, Firm/ Round			B-Papilloma, transitional cell, Incidental.
Mandibular LN	. . . Enlarged, Mottled, +1			Hyperplasia, Lymphoid, Mild.

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Individual Animal Report of Correlated Gross and Microscopic Diagnoses  
 Study Number: FY01013M  
 Printed: 10-Jul-06  
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Animal: 6831E410	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 644 Dosing phase				Terminal body weight (g): 369.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver . . . . .	Discolored, Pale, +2			M-Leukemia, mononuclear, Contributory.
Pituitary gland . . . . .	Discolored, Diffuse, Pale, +2			Examined; no correlation found
Spleen . . . . .	Enlarged, 90-112 mm, Dark Red, +3			M-Leukemia, mononuclear, Contributory.
	Discolored, 3-5 mm, Pale, +1/ Single Round			Fibrosis, Mild.
Testes . . . . .	Discolored, Bilateral, Patchy, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Lungs . . . . .	Discolored, All Lobes, Round, Dark Red, +1/ Foci			N-Leukemia, mononuclear - capillary involvement, Contributory.
Mediastinal LN . . . . .	Enlarged, 6-10 mm, Pale, Firm/ Single Round			N-Leukemia, mononuclear, Incidental.
Preputial gland . . . . .	Enlarged, Right, 6-10 mm, Brown, +3/ Single Oval			Ectasia, Moderate.
Animal: 6831E411	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 675 Dosing phase				Terminal body weight (g): 339.4
Tissue	Gross observations / Comments			Correlated microscopic observations
Mediastinal LN . . . . .	Enlarged, 6-10 mm, +1			N-Leukemia, mononuclear, Incidental.
Bronchial (TBLN) . . . . .	Enlarged, 6-10 mm, +1			N-Leukemia, mononuclear, Incidental.
Lungs . . . . .	Discolored, 0-2 mm, Red/ Multifocal Round			N-Leukemia, mononuclear - capillary involvement, Contributory.
Testes . . . . .	Discolored, Right, Patchy, Mottled, +2/ Irregular			B-Adenoma, interstitial cell, Incidental.
Spleen . . . . .	Enlarged, 68-89 mm, +2			M-Leukemia, mononuclear, Contributory.
Pancreatic LN . . . . .	Enlarged, 6-10 mm, +2			N-Leukemia, mononuclear, Incidental.
Iliac LN . . . . .	Enlarged, 6-10 mm			N-Leukemia, mononuclear, Incidental.
Animal: 6831E412	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 558 Dosing phase				Terminal body weight (g): 331.9
Tissue	Gross observations / Comments			Correlated microscopic observations
Jejunum . . . . .	Mass, 68-89 mm, Mottled, Soft, +4			M-Adenocarcinoma, Contributory.
Testes . . . . .	Discolored, Left, Patchy, Mottled, Soft, +2/ Irregular			B-Adenoma, interstitial cell, Incidental.

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Animal: 6831E413	Sex: Male	Group: 1	Dose level: 0 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 379.5	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Epididymis	Small, Bilateral, Diffuse, +3	Atrophy, Moderate.	
Animal: 6831E414	Sex: Male	Group: 1	Dose level: 0 g/m3
Day of death: 616 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 255.3	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, All Lobes, Diffuse, Mottled, +3/ brown	Inflammation, acute, Marked.	
Testes	Discolored, Left, Diffuse, Mottled, +1/ irregular	B-Adenoma, interstitial cell, Incidental.	
Brain	Deformity, 6-10 mm/ single, round	Compression, Mild.	
Pituitary gland	Enlarged, 3-5 mm, Purple, +3/ round	B-Adenoma, pars distalis, Incidental.	
Animal: 6831E415	Sex: Male	Group: 1	Dose level: 0 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 395.5	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Liver	Mass, Right, 21-45 mm, Mottled, Firm, +4/ Irregular	B-Adenoma, hepatocellular, Incidental.	
Spleen	Enlarged, 46-67 mm, +1	M-Leukemia, mononuclear, Contributory.	
Testes	Cyst, Right, 21-45 mm, Opaque, Watery, +4/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Seminal vesicle	Small, Left, 16-20 mm, Mottled, +2	B-Adenoma, interstitial cell, Incidental.	
	Small, Bilateral, +2	Atrophy, Moderate.	
Animal: 6831E416	Sex: Male	Group: 1	Dose level: 0 g/m3
Day of death: 666 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 385.4	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, 0-2 mm, Dark/ Multifocal Round	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen	Enlarged, 90-112 mm, +4	M-Leukemia, mononuclear, Contributory.	
Testes	Discolored, Patchy, Mottled, +2/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Pancreatic LN	Enlarged, 6-10 mm, +2	N-Leukemia, mononuclear, Incidental.	
Liver	Thick, +2	M-Leukemia, mononuclear, Contributory.	

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Animal: 6831E416	Sex: Male	Group: 1	Dose level:
Day of death: 666 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 385.4
Tissue	Gross observations / Comments		Correlated microscopic observations
Lymph node other	Enlarged, Renal, 6-10 mm, +2		N-Leukemia, mononuclear, Incidental.
Animal: 6831E417	Sex: Male	Group: 1	Dose level:
Day of death: 734 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 372.5
Tissue	Gross observations / Comments		Correlated microscopic observations
Brain	Deformity, 6-10 mm		Compression, Moderate.
Kidneys	Discolored, Diffuse, Mottled, +1		Nephropathy, chronic, Moderate.
Pituitary gland	Mass, 6-10 mm, Dark, Soft/ Diffuse Oval		B-Adenoma, pars distalis, Incidental.
Spleen	Discolored, Patchy, Tan, +2/ Irregular		Examined; no correlation found
Animal: 6831E418	Sex: Male	Group: 1	Dose level:
Day of death: 737 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 398.8
Tissue	Gross observations / Comments		Correlated microscopic observations
Preputial gland	Enlarged, Left, 6-10 mm, Yellow, Rubbery, +2/ Yellow/Green		Inflammation, mixed, Marked.
Testes	Enlarged, Left, Diffuse, Mottled, +3		B-Adenoma, interstitial cell, Incidental.
Seminal vesicle	Small, Bilateral, +2		Atrophy, Moderate.
Liver	Hernia, Median Lobe, 11-15 mm/ Single Oval		Hepatodiaphragmatic nodule, Present.
Animal: 6831E419	Sex: Male	Group: 1	Dose level:
Day of death: 695 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 359.2
Tissue	Gross observations / Comments		Correlated microscopic observations
Pituitary gland	Discolored, 0-2 mm, Dark, +1/ Focus		Cyst, Mild.
Spleen	Enlarged, 90-112 mm, +2/ Diffuse		M-Leukemia, mononuclear, Contributory.
Testes	Small, Right, Diffuse, Mottled, +2		B-Adenoma, interstitial cell, Incidental.
	Discolored, Left, Mottled, +2		B-Adenoma, interstitial cell, Incidental.

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Animal: 6831E420	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose Level: 0 g/m3
Day of death: 702 Dosing phase				Terminal body weight (g): 355.4
Tissue	Gross observations / Comments	Correlated microscopic observations		
Mandibular LN . . .	Enlarged, 6-10 mm, +2/ Multiple	N-Leukemia, mononuclear, Incidental.		
Bronchial (TBLN) .	Enlarged, 3-5 mm, +3/ Multiple	N-Leukemia, mononuclear, Incidental.		
Mediastinal LN . .	Enlarged, 6-10 mm, +2	N-Leukemia, mononuclear, Incidental.		
Lungs . . . . .	Discolored, Left Lobe, 0-2 mm, Pale, +2/ Multifocal Round	N-Leukemia, mononuclear - capillary involvement, Contributory.		
Lymph node other .	Enlarged, Axillary, 6-10 mm, +3	N-Leukemia, mononuclear, Incidental.		
Cavities . . . . .	Enlarged, Renal, 6-10 mm, +2	N-Leukemia, mononuclear, Incidental.		
Pituitary gland . .	Fluid, Thoracic, 10.1-15 mL, Dark, +2	No correlation entry made		
Spleen . . . . .	Discolored, Single, Dark/ Focus Round	Examined; no correlation found		
Testes . . . . .	Enlarged, 68-89 mm, +2	M-Leukemia, mononuclear, Contributory.		
Mesenteric LN . .	Discolored, Left, Patchy, Mottled, +3	B-Adenoma, interstitial cell, Incidental.		
Iliac LN . . . . .	Discolored, Right, Patchy, Mottled, +1	B-Adenoma, interstitial cell, Incidental.		
Popliteal LN . . .	Enlarged, 6-10 mm, +2	N-Leukemia, mononuclear, Incidental.		
	Enlarged, 11-15 mm, +3	N-Leukemia, mononuclear, Incidental.		
	Enlarged, 6-10 mm, +3	N-Leukemia, mononuclear, Incidental.		
Animal: 6831E421	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose Level: 0 g/m3
Day of death: 576 Dosing phase				Terminal body weight (g): 385.2
Tissue	Gross observations / Comments	Correlated microscopic observations		
Spleen . . . . .	Enlarged, 90-112 mm, +3/ diffuse	M-Leukemia, mononuclear, Contributory.		
Testes . . . . .	Mass, Right, 6-10 mm, Yellow, +2/ Dull, patchy, irregular, soft	B-Adenoma, interstitial cell, Incidental.		
Liver . . . . .	Mass, Left, 11-15 mm, Yellow, Soft, +2/ patchy, irregular, dull	B-Adenoma, interstitial cell, Incidental.		
Bronchial (TBLN) .	Discolored, Diffuse, Mottled, +2	M-Leukemia, mononuclear, Contributory.		
	Enlarged, 6-10 mm, Green, Firm/ Oval	N-Leukemia, mononuclear, Incidental.		

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Animal: 6831E422	Sex: Male	Status: Final phase sacrifice	Group: 1	Dose level: 0 g/m3
Day of death: 738 Dosing phase				Terminal body weight (g): 384.3
Tissue	Gross observations / Comments		Correlated microscopic observations	
Mandibular LN . . .	Enlarged, 6-10 mm, Red, +2/ 1 Diffuse		Hemorrhage, Mild.	
Thyroid glands . . .	Nodule, Right, 0-2 mm, Pale, Firm/ 1 round		M-Carcinoma, follicular cell, Incidental.	
Testes . . . . .	Discolored, Bilateral, Patchy, Mottled, +3/ Irregular		B-Adenoma, interstitial cell, Incidental.	
Spleen . . . . .	Discolored, 6-10 mm, Pale/ Focus Round		Examined; no correlation found	
Preputial gland . .	Enlarged, Right, Diffuse, Yellow, Firm, +2/ Yellow/Green		Inflammation, chronic, Mild.	
Animal: 6831E423	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 597 Dosing phase				Terminal body weight (g): 381.1
Tissue	Gross observations / Comments		Correlated microscopic observations	
Liver . . . . .	Nodule, Median Lobe, 3-5 mm, Yellow, Firm/ Single Round		Hyperplasia, hepatocellular, regenerative, Mild.	
Spleen . . . . .	Enlarged, 68-89 mm, Dark Red, +2/ Single		M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Mass, Right, 11-15 mm, Pale, +3/ Multiple Irregular		B-Adenoma, interstitial cell, Incidental.	
Animal: 6831E424	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 626 Dosing phase				Terminal body weight (g): 365.0
Tissue	Gross observations / Comments		Correlated microscopic observations	
Lungs . . . . .	Discolored, Diffuse, Red, +1		N-Leukemia, mononuclear - capillary involvement, Contributory.	
Testes . . . . .	Discolored, Right, Diffuse, Mottled, +3		B-Adenoma, interstitial cell, Incidental.	
Spleen . . . . .	Enlarged, 68-89 mm, +2		M-Leukemia, mononuclear, Contributory.	
Pancreatic LN . . .	Enlarged, 11-15 mm, Pale, Firm/ oval		N-Leukemia, mononuclear, Incidental.	
Kidneys . . . . .	Discolored, Left, 6-10 mm, Tan/ Single, focus, Irregular		Nephropathy, chronic, Moderate.	
	Discolored, Right, 3-5 mm, Tan/ Single, Focus, Irregular		Nephropathy, chronic, Moderate.	
Adrenal glands . .	Enlarged, Left, 6-10 mm, +2		B-Pheochromocytoma, complex, benign, Incidental.	

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Animal: 6831E425	Sex: Male	Status: Found Dead	Group: 1	Dose Level: 0 g/m3
Day of death: 629 Dosing phase				Terminal body weight (g): 434.1
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Discolored, Bilateral, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Spleen	Discolored, 16-20 mm, Mottled, +2			Fibrosis, Mild.
Liver	Thick, Diffuse, Mottled, +2			Examined; no correlation found
Pituitary gland	Enlarged, 3-5 mm, Pink, +2/ Diffuse			Examined; no correlation found
Animal: 6831E426	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose Level: 0 g/m3
Day of death: 710 Dosing phase				Terminal body weight (g): 282.1
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	Enlarged, 68-89 mm, +2			M-Leukemia, mononuclear, Contributory.
	Discolored, 21-45 mm, Dark/ Patchy Irregular			Necrosis, Marked.
Testes	Discolored, Patchy, Mottled, +2/ Irregular			B-Adenoma, interstitial cell, Incidental.
Animal: 6831E427	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose Level: 0 g/m3
Day of death: 729 Dosing phase				Terminal body weight (g): 294.9
Tissue	Gross observations / Comments			Correlated microscopic observations
Mandibular LN	Enlarged, 6-10 mm, Pale, +3/ Multiple Oval			N-Leukemia, mononuclear, Incidental.
Bronchial (TBLN)	Discolored, Diffuse, Red, +3			N-Leukemia, mononuclear, Contributory.
Mediastinal LN	Mass, 21-45 mm, Pale, Firm, +4/ Irregular			N-Leukemia, mononuclear, Incidental.
Lungs	Mass, All Lobes, 21-45 mm, Mottled, +4/ Multiple			N-Leukemia, mononuclear - Invasive involvement, Contributory.
Spleen	Enlarged, 46-67 mm, Dark Red, +3			M-Leukemia, mononuclear, Contributory.
Liver	Thick, Pale, +3			M-Leukemia, mononuclear, Contributory.
	Nodule, Median Lobe, 0-2 mm, White, Firm, +2/ Focus Round			Examined; no correlation found
Lymph node other	Enlarged, Renal, 11-15 mm, Pale, +2/ Multiple			N-Leukemia, mononuclear, Incidental.
Thymus	Mass, 21-45 mm, Pale, Firm, +4/ Irregular			M-Leukemia, mononuclear, Incidental.
Brain	Deformity, 6-10 mm, +4			Compression, Moderate.
Pituitary gland	Enlarged, 6-10 mm, Yellow, +4			M-Leukemia, mononuclear, Contributory.

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Animal: 6831E427	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 729 Dosing phase				Terminal body weight (g): 294.9
Tissue	Gross observations / Comments			Correlated microscopic observations
Seminal vesicle	Mass, Right, 6-10 mm, Pale, +3/ Oval			M-Leukemia, mononuclear, Incidental.
Mediastinum	Mass, 6-10 mm, Pale, Firm, +3/ Single Irregular			N-Leukemia, mononuclear, Incidental.
Animal: 6831E428	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 629 Dosing phase				Terminal body weight (g): 355.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Jejunum	Mass, 21-45 mm, Pale, Firm			M-Adenocarcinoma, Contributory.
Ileum	Mass, 21-45 mm, Pale, Firm			B-Fibroma, Incidental.
Liver	Discolored, Diffuse, Pale, +3			Examined; no correlation found
Animal: 6831E429	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 661 Dosing phase				Terminal body weight (g): 352.3
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	Discolored, Right middle, 0-2 mm, Red, +1/ 1 Focus Round			N-Leukemia, mononuclear - capillary involvement, Contributory.
Bronchial (TBLN)	Enlarged, 6-10 mm			N-Leukemia, mononuclear, Incidental.
Mandibular LN	Enlarged, 6-10 mm/ Multiple			N-Leukemia, mononuclear, Incidental.
Mediastinal LN	Enlarged, 3-5 mm			N-Leukemia, mononuclear, Incidental.
Spleen	Enlarged, 90-112 mm/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Lymph node other	Enlarged, Renal, 6-10 mm, Tan/ Multiple, Oval, Bilateral			N-Leukemia, mononuclear, Incidental.
Animal: 6831E430	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 651 Dosing phase				Terminal body weight (g): 327.7
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	Discolored, Diffuse, Mottled, +2			Inflammation, mixed, Moderate.
Thyroid glands	Enlarged, Left, 6-10 mm, Dark/ Diffuse Irregular			B-Adenoma, follicular cell, Contributory.
Testes	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.

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Animal: 6831E430	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 651 Dosing phase				Terminal body weight (g): 327.7
Tissue	Gross observations / Comments			Correlated microscopic observations
Eyes/optic nerve	. Small, Left			Atrophy, Marked.
Animal: 6831E431	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 389 Dosing phase				Terminal body weight (g): 346.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver	. . . . . Discolored, Diffuse, Mottled Red, +1			Examined; no correlation found
Animal: 6831E432	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 653 Dosing phase				Terminal body weight (g): 379.0
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver	. . . . . Thick, Red, +3			M-Leukemia, mononuclear, Contributory.
Spleen	. . . . . Enlarged, 90-112 mm, Dark Red, +3			M-Leukemia, mononuclear, Contributory.
Testes	. . . . . Discolored, 11-15 mm, Pale, Soft, +3/ Multiple Irregular			Fibrosis, Moderate.
Testes	. . . . . Discolored, Bilateral, Patchy, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Animal: 6831E433	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 675 Dosing phase				Terminal body weight (g): 311.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	. . . . . Discolored, Left, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Liver	. . . . . Discolored, Right, Patchy, Mottled, +1/ Irregular			B-Adenoma, interstitial cell, Incidental.
Animal: 6831E434	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 652 Dosing phase				Terminal body weight (g): 317.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Stomach	. . . . . Rupture, 3-5 mm/ Single Round			Inflammation, mixed, Moderate.
Liver	. . . . . Discolored, Diffuse, Pale, +2			Fatty Change, Moderate.
Adrenal glands	. . . . . Discolored, Diffuse, Pale, +4			Examined; no correlation found
Kidneys	. . . . . Discolored, Diffuse, Mottled, +3			Nephropathy, chronic, Moderate.
Brain	. . . . . Deformity, 6-10 mm, +4/ Single Depressed			Compression, Moderate.
Pituitary gland	. . . . . Mass, 6-10 mm, Soft, +4/ Single Round			B-Adenoma, pars distalis, Incidental.

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Animal: 6831E435	Sex: Male	Status: Final phase sacrifice	Group: 1	Dose level: 0 g/m3
Day of death: 738 Dosing phase				Terminal body weight (g): 355.1
Tissue	Gross observations / Comments	Correlated microscopic observations		
Brain	Deformity, 3-5 mm, +1	Compression, Moderate.		
Kidneys	Discolored, Bilateral, Diffuse, Mottled, +3	Nephropathy, chronic, Moderate.		
Liver	Discolored, Diffuse, Mottled, +3	Fatty Change, Mild.		
Pituitary gland	Mass, 3-5 mm, Mottled, Firm, +2/ Diffuse Irregular	B-Adenoma, pars distalis, Incidental.		
Testes	Discolored, Bilateral, Patchy, Mottled, +2	B-Adenoma, interstitial cell, Incidental.		
Mammary gland	Mass, Right, 21-45 mm, Firm, +3/ Irregular	B-Fibroma, Incidental.		
Popliteal LN	Enlarged, Right, 3-5 mm, +3/ Diffuse Irregular	(Lymph node other) Sinus plasmacytosis, Marked.		
Animal: 6831E436	Sex: Male	Status: Final phase sacrifice	Group: 1	Dose level: 0 g/m3
Day of death: 738 Dosing phase				Terminal body weight (g): 393.1
Tissue	Gross observations / Comments	Correlated microscopic observations		
Testes	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.		
Seminal vesicle	Small, Bilateral, +3	Atrophy, Moderate.		
Tail	Amputation, Tip, +1	Inflammation, acute, Marked.		
Animal: 6831E437	Sex: Male	Status: Final phase sacrifice	Group: 1	Dose level: 0 g/m3
Day of death: 735 Dosing phase				Terminal body weight (g): 398.3
Tissue	Gross observations / Comments	Correlated microscopic observations		
Testes	Discolored, Bilateral, Patchy, Mottled, +1/ Irregular	B-Adenoma, interstitial cell, Incidental.		
Animal: 6831E438	Sex: Male	Status: Sacrificed moribund	Group: 1	Dose level: 0 g/m3
Day of death: 680 Dosing phase				Terminal body weight (g): 331.8
Tissue	Gross observations / Comments	Correlated microscopic observations		
Liver	Thick, Red, +3	M-Leukemia, mononuclear, Contributory.		
Spleen	Enlarged, 68-89 mm, Dark Red, +2	M-Leukemia, mononuclear, Contributory.		
Skin	Crust, Dorsal, 16-20 mm, Tan, Hard, +3/ Single Irregular	Hyperkeratosis, Marked.		
Mediastinal LN	Discolored, Diffuse, Dark Red, +3/ Oval	Hemorrhage, Minimal.		

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Animal: 6831E439	Sex: Male	Group: 1	Dose level:	0 g/m3
Day of death: 365 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g):	417.3	
Tissue	Gross observations / Comments	Correlated microscopic observations		
Skin	Mass, Dorsal, 21-45 mm, Mottled, Firm/ Single Round	B-Fibroma, Incidental.		
Lungs	Discolored, Diffuse, Mottled Red, +2	Examined; no correlation found		
Seminal vesicle	Small, Left, 11-15 mm	Atrophy, Mild.		
Animal: 6831E440	Sex: Male	Group: 1	Dose level:	0 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g):	396.8	
Tissue	Gross observations / Comments	Correlated microscopic observations		
Adrenal glands	Cyst, Left, 11-15 mm, Mottled Red, Watery/ Single Round	M-Pheochromocytoma, malignant, Incidental.		
Skin	Mass, Dorsal, 21-45 mm, Dark, Rough, +4/ Single Round	B-Fibroma, Incidental.		
Testes	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.		
Lungs	Discolored, All Lobes, 0-2 mm, Red, +2/ Multiple foci Round	Hemorrhage, Minimal.		
Seminal vesicle	Small, Bilateral, +4/ Both	Atrophy, Mild.		
Animal: 6831E441	Sex: Male	Group: 1	Dose level:	0 g/m3
Day of death: 624 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g):	366.9	
Tissue	Gross observations / Comments	Correlated microscopic observations		
Lungs	Nodule, Right caudal, 0-2 mm, Firm/ Round	B-Adenoma, bronchiolo-alveolar, Incidental.		
Spleen	Discolored, Right caudal, Tan, +1	Hyperplasia, alveolar epithelial, focal, Minimal.		
Testes	Enlarged, 68-89 mm, +2/ Diffuse	M-Leukemia, mononuclear, Contributory.		
Pituitary gland	Mass, Left, 6-10 mm, Yellow, +1/ Irregular	B-Adenoma, interstitial cell, Incidental.		
	Discolored, 3-5 mm, Red, +2/ Focus, Irregular	B-Adenoma, pars distalis, Incidental.		
Animal: 6831E442	Sex: Male	Group: 1	Dose level:	0 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g):	383.6	
Tissue	Gross observations / Comments	Correlated microscopic observations		
Mediastinal LN	Enlarged, 6-10 mm	N-Leukemia, mononuclear, Incidental.		
Bronchial (TBLN)	Enlarged, 6-10 mm	N-Leukemia, mononuclear, Incidental.		

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Animal: 6831E442 Sex: Male Status: Final phase sacrifice Group: 1 Dose level: 0 g/m3  
 Day of death: 736 Dosing phase Terminal body weight (g): 383.6  
 Tissue Gross observations / Comments Correlated microscopic observations  
 Spleen . . . . . Enlarged, 68-89 mm, +2 (continued) M-Leukemia, mononuclear, Contributory.  
 Testes . . . . . Discolored, Bilateral, Diffuse, Mottled, +3 B-Adenoma, interstitial cell, Incidental.  
 Pancreatic LN . . . . . Enlarged, 6-10 mm N-Leukemia, mononuclear, Incidental.  
 Liver . . . . . Mass, Right, 21-45 mm, Mottled, Firm/ Diffuse M-Carcinoma, hepatocellular, Contributory.  
 Kidneys . . . . . Thick, Median Lobe, +2 M-Leukemia, mononuclear, Contributory.  
 Lymph node other . . . . . Discolored, Bilateral, Diffuse, Mottled, +3 Nephropathy, chronic, Marked.  
 Iliac LN . . . . . Enlarged, Renal, 6-10 mm N-Leukemia, mononuclear, Incidental.  
 Popliteal LN . . . . . Enlarged, 3-5 mm N-Leukemia, mononuclear, Incidental.

Animal: 6831E443 Sex: Male Status: Final phase sacrifice Group: 1 Dose level: 0 g/m3  
 Day of death: 737 Dosing phase Terminal body weight (g): 404.7  
 Tissue Gross observations / Comments Correlated microscopic observations  
 Testes . . . . . Discolored, Bilateral, Diffuse, Mottled, +3 B-Adenoma, interstitial cell, Incidental.  
 Preputial gland . . . . . Enlarged, Right, Diffuse, Yellow, +2/ Yellow/Green Ectasia, Marked.

Animal: 6831E444 Sex: Male Status: Sacrificed moribund Group: 1 Dose level: 0 g/m3  
 Day of death: 661 Dosing phase Terminal body weight (g): 331.1  
 Tissue Gross observations / Comments Correlated microscopic observations  
 Mediastinal LN . . . . . Enlarged, 6-10 mm, Pale, Firm, +2/ Multiple Round N-Leukemia, mononuclear, Contributory.  
 Spleen . . . . . Enlarged, 68-89 mm, Dark Red, +2 M-Leukemia, mononuclear, Contributory.  
 Liver . . . . . Thick, Irregular, Mottled, +3 M-Leukemia, mononuclear, Contributory.  
 Testes . . . . . Discolored, Bilateral, Patchy, Mottled, +2 B-Adenoma, interstitial cell, Incidental.  
 Kidneys . . . . . Discolored, Left, 3-5 mm, Pale, +2/ Focus Round Nephropathy, chronic, Moderate.  
 Adrenal glands . . . . . Enlarged, Left, 3-5 mm, Red, +1/ Round B-Pheochromocytoma, benign, Incidental.

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Animal: 6831E445		Sex: Male	Group: 1	Dose level: 0 g/m3
Day of death: 624 Dosing phase	Status: Sacrificed moribund			Terminal body weight (g): 369.9
-----				
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen . . . . .	Enlarged, 68-89 mm, Dark Red, +3			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Liver . . . . .	Discolored, Diffuse, Mottled, +3			M-Leukemia, mononuclear, Contributory.
-----				
Animal: 6831E446		Sex: Male	Group: 1	Dose level: 0 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice			Terminal body weight (g): 352.3
-----				
Tissue	Gross observations / Comments			Correlated microscopic observations
Mediastinal LN . . . . .	Enlarged, 3-5 mm, +2/ Multifocus Irregular			N-Leukemia, mononuclear, Incidental.
Spleen . . . . .	Enlarged, 68-89 mm, +2/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Thyroid glands . . . . .	Discolored, Left, 3-5 mm, Dark, +1/ Focus Irregular			Examined; no correlation found
-----				
Animal: 6831E447		Sex: Male	Group: 1	Dose level: 0 g/m3
Day of death: 640 Dosing phase	Status: Sacrificed moribund			Terminal body weight (g): 353.4
-----				
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen . . . . .	Enlarged, 68-89 mm, +3			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Patchy, Mottled, +2/ Irregular			B-Adenoma, interstitial cell, Incidental.
Pituitary gland . . . . .	Discolored, 0-2 mm, Dark/ 1 Focus Round			Cyst, Moderate.
Liver . . . . .	Thick, Diffuse, Mottled, +4			M-Leukemia, mononuclear, Contributory.
Pancreatic LN . . . . .	Enlarged, 6-10 mm, Red, +3/ Diffuse			N-Leukemia, mononuclear, Incidental.
-----				
Animal: 6831E448		Sex: Male	Group: 1	Dose level: 0 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice			Terminal body weight (g): 396.0
-----				
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs . . . . .	Discolored, Left Lobe, 0-2 mm, Pale, Soft/ Single Round			Examined; no correlation found
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Pituitary gland . . . . .	Discolored, 0-2 mm, Dark/ Focus Round			Examined; no correlation found

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Animal: 6831E449	Sex: Male	Group: 1	Dose level:	0 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g):	418.7
Tissue	Gross observations / Comments		Correlated microscopic observations	
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4		B-Adenoma, interstitial cell, Incidental.	
	Enlarged, Right, 21-45 mm, Mottled, +4		B-Adenoma, interstitial cell, Incidental.	
Animal: 6831E450	Sex: Male	Group: 1	Dose level:	0 g/m3
Day of death: 581 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g):	440.7
Tissue	Gross observations / Comments		Correlated microscopic observations	
Lungs . . . . .	Discolored, Left Lobe, 0-2 mm, Red/ 1 focus, round		Examined; no correlation found	
Testes . . . . .	Discolored, Irregular, Mottled, +1/ patchy		B-Adenoma, interstitial cell, Incidental.	
Liver . . . . .	Discolored, Diffuse, Mottled, +2		M-Leukemia, mononuclear, Contributory.	
Animal: 6833F501	Sex: Male	Group: 2	Dose level:	2 g/m3
Day of death: 643 Dosing phase	Status: Found Dead		Terminal body weight (g):	357.8
Tissue	Gross observations / Comments		Correlated microscopic observations	
Mediastinal LN . . . . .	Enlarged, 3-5 mm, +2		N-Leukemia, mononuclear, Incidental.	
Bronchial (TBLN) . . . . .	Enlarged, 3-5 mm, +2		N-Leukemia, mononuclear, Incidental.	
Spleen . . . . .	Enlarged, 68-89 mm, +2		M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Discolored, Left, Patchy, Mottled, +1/ Irregular		B-Adenoma, interstitial cell, Incidental.	
	Discolored, Right, Patchy, Mottled, +3/ Irregular		B-Adenoma, interstitial cell, Incidental.	
Pancreatic LN . . . . .	Enlarged, 6-10 mm, +3		N-Leukemia, mononuclear, Incidental.	
Liver . . . . .	Thick, +1		M-Leukemia, mononuclear, Contributory.	
Iliac LN . . . . .	Enlarged, 3-5 mm, +1		N-Leukemia, mononuclear, Incidental.	
Lymph node other . . . . .	Enlarged, Renal, 3-5 mm, +1		N-Leukemia, mononuclear, Incidental.	
Animal: 6833F502	Sex: Male	Group: 2	Dose level:	2 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g):	384.3
Tissue	Gross observations / Comments		Correlated microscopic observations	
Skin . . . . .	Crust, Abdominal, 6-10 mm, Red, Firm, +2/ Focus		M-Carcinoma, sebaceous cell, Incidental.	
	Irregular Lower Abdomen			
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4		B-Adenoma, interstitial cell, Incidental.	

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Animal: 6833F503		Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 728 Dosing phase	Status: Found Dead			Terminal body weight (g): 328.8
-----				
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs . . . . .	Discolored, Diffuse, Red, +2			N-Leukemia, mononuclear - capillary involvement, Contributory.
-----				
Pituitary gland . . . . .	Cyst, 0-2 mm, Clear, Soft/ Single Round			Examined; no correlation found
Spleen . . . . .	Enlarged, 68-89 mm, +3			M-Leukemia, mononuclear, Contributory.
Liver . . . . .	Enlarged, Diffuse, Mottled, Gritty, +2			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Patchy, Mottled, +3/ Irregular			B-Adenoma, interstitial cell, Incidental.
-----				
Animal: 6833F504		Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 682 Dosing phase	Status: Sacrificed moribund			Terminal body weight (g): 344.8
-----				
Tissue	Gross observations / Comments			Correlated microscopic observations
Adrenal glands . . . . .	Enlarged, Left, 6-10 mm, Mottled/ Diffuse			B-Pheochromocytoma, benign, Incidental.
Spleen . . . . .	Enlarged, 90-112 mm, +3/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Bilateral, Patchy, Mottled, +1			B-Adenoma, interstitial cell, Incidental.
Lungs . . . . .	Discolored, Right cranial, 3-5 mm, White, +1			Hyperplasia, alveolar epithelial, focal, Mild.
-----				
Animal: 6833F505		Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice			Terminal body weight (g): 400.1
-----				
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes . . . . .	Enlarged, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Tail . . . . .	Nodule, 3-5 mm, Firm			Cyst, epithelial inclusion, Present.
-----				
Mesentery . . . . .	Mass, 21-45 mm, Mottled, Firm/ Diffuse Irregular			Hyperplasia/hyperkeratosis, Moderate. Inflammation, mixed, Marked.
-----				
Animal: 6833F506		Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 640 Dosing phase	Status: Sacrificed moribund			Terminal body weight (g): 299.2
-----				
Tissue	Gross observations / Comments			Correlated microscopic observations
Mandibular LN . . . . .	Discolored, 0-2 mm, Red, +1/ 2 Focus Round			N-Leukemia, mononuclear, Incidental.
Lungs . . . . .	Discolored, 0-2 mm, Red, +1/ Multifocal Round			N-Leukemia, mononuclear - capillary involvement, Contributory.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.

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Animal: 6833F506		Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 640 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 299.2	
Tissue	Gross observations / Comments		Correlated microscopic observations	
Epидidymis	. . . Small, Bilateral, +2 (continued)		Atrophy, Mild.	
Liver	. . . Discolored, Diffuse, Mottled, +3/ Mottled Pale		M-Leukemia, mononuclear, Contributory.	
Spleen	. . . Enlarged, 90-112 mm, +2		M-Leukemia, mononuclear, Contributory.	
Animal: 6833F507		Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 661 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 367.4	
Tissue	Gross observations / Comments		Correlated microscopic observations	
Bronchial (TBLN)	. Enlarged, 6-10 mm, +1		N-Leukemia, mononuclear, Incidental.	
Lungs	. . . Discolored, 0-2 mm, Red, +2/ Multifocal Round		N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen	. . . Enlarged, 68-89 mm, +3		M-Leukemia, mononuclear, Contributory.	
Testes	. . . Discolored, Patchy, Mottled, +2/ Irregular		B-Adenoma, interstitial cell, Incidental.	
Pituitary gland	. . Discolored, 0-2 mm, Pale/ 1 Focus Round		Examined; no correlation found	
Animal: 6833F508		Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 387.3	
Tissue	Gross observations / Comments		Correlated microscopic observations	
Testes	. . . Discolored, Bilateral, Diffuse, Mottled, +4		B-Adenoma, interstitial cell, Incidental.	
Lungs	. . . Discolored, All Lobes, 0-2 mm, Red, +3/ Foci Round		Examined; no correlation found	
Animal: 6833F509		Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 588 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 503.4	
Tissue	Gross observations / Comments		Correlated microscopic observations	
Mediastinal LN	. . Discolored, Diffuse, Black, +4/ Round		Pigmentation, Marked.	
Epидidymis	. . . Discolored, Bilateral, Diffuse, Brown, +4		M-Mesothelioma, malignant, Contributory.	
Testes	. . . Mass, Bilateral, Single, Mottled, Soft, +4/ irregular		B-Adenoma, interstitial cell, Incidental.	
Adrenal glands	. . Enlarged, Bilateral, Pink, +1		Examined; no correlation found	

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Animal: 6833F510	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 645 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 314.7	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Skin	Mass, 11-15 mm, +2/ Mouth	Inflammation, mixed, Marked.	
Testes	Enlarged, Left, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Mandibular LN	Enlarged, 6-10 mm, +2/ Diffuse Oval	Examined; no correlation found	
Animal: 6833F511	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 411.5	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Mass, Right caudal, 6-10 mm, Tan, Firm/ 1 Round	Hyperplasia, alveolar epithelial, focal, Mild.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4 Enlarged, Bilateral, +2	B-Adenoma, interstitial cell, Incidental. B-Adenoma, interstitial cell, Incidental.	
Skin	Mass, Subcut Tiss, 21-45 mm, Mottled, Firm/ Single Irregular	M-Sarcoma, undifferentiated, Contributory.	
Liver	Nodule, Left Lobe, 0-2 mm, Pale, Firm/ Single Round	Fatty Change, Minimal.	
Pituitary gland	Discolored, 0-2 mm, Dark/ Single Focus Round	B-Adenoma, pars distalis, Incidental.	
Animal: 6833F512	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 483 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 306.8	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen	Enlarged, 16-20 mm/ Diffuse	M-Leukemia, mononuclear, Contributory.	
Animal: 6833F513	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 280.5	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Liver	Discolored, Median Lobe, 3-5 mm, Pale, +1/ Single Flat	Hyperplasia, hepatocellular, regenerative, Mild.	
Spleen	Enlarged, 68-89 mm, +2	M-Leukemia, mononuclear, Contributory.	
Testes	Small, Bilateral, +3	Atrophy, Moderate.	
Preputial gland	Mass, 21-45 mm, Mottled, Caseous/ Irregular	B-Adenoma, interstitial cell, Incidental. Ectasia, Marked.	

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Animal: 6833F514	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 577 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 395.1	
-----			
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs . . . . .	Discolored, 0-2 mm, Red/ multifocal, round	Examined; no correlation found	
Spleen . . . . .	Enlarged, 46-67 mm, +2	Congestion, Moderate.	
Testes . . . . .	Discolored, Right, Diffuse, Mottled, +2	B-Adenoma, interstitial cell, Incidental.	
Animal: 6833F515	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 547 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 352.0	
-----			
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lymph node other . . . . .	Enlarged, Axillary, 16-20 mm, Yellow, +3/ Bilateral Oval	N-Leukemia, mononuclear, Incidental.	
	Enlarged, Submandibular, 6-10 mm, Yellow, +3/ Multiple Oval	N-Leukemia, mononuclear, Incidental.	
Mandibular LN . . . . .	Enlarged, Renal, 6-10 mm, Yellow, +3/ Bilateral	N-Leukemia, mononuclear, Incidental.	
Mediastinal LN . . . . .	Enlarged, 6-10 mm, Yellow, +3/ Multiple Oval	N-Leukemia, mononuclear, Incidental.	
Bronchial (TBLN) . . . . .	Enlarged, 3-5 mm, Yellow, +2/ Single Round	N-Leukemia, mononuclear, Incidental.	
Lungs . . . . .	Focus, All Lobes, 3-5 mm, Dark Red, +2/ Multiple Round	Hemorrhage, Minimal.	
Spleen . . . . .	Enlarged, 46-67 mm, Dark Red, Firm, +3	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Mass, Left, 6-10 mm, White, Soft, +3/ Focus Irregular	B-Adenoma, interstitial cell, Incidental.	
Mesenteric LN . . . . .	Enlarged, 6-10 mm, Yellow, +4	N-Leukemia, mononuclear, Incidental.	
Iliac LN . . . . .	Enlarged, 11-15 mm, Yellow, +3	No correlation entry made	
Animal: 6833F516	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 377.9	
-----			
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen . . . . .	Enlarged, 46-67 mm, +2	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Enlarged, Right, 16-20 mm, +3	B-Adenoma, interstitial cell, Incidental.	
	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Seminal vesicle . . . . .	Small, Bilateral, +3	Atrophy, Moderate.	

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Animal: 6833F516		Sex: Male	Group: 2	Dose level:	2 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice			Terminal body weight (g):	377.9
Tissue	Gross observations / Comments			Correlated microscopic observations	
	(continued)				
Pituitary gland	. . . Discolored, 0-2 mm, Dark Red, Soft/			B-Adenoma, pars distalis, Incidental.	
1 Oval					
Animal: 6833F517		Sex: Male	Group: 2	Dose level:	2 g/m3
Day of death: 693 Dosing phase	Status: Sacrificed moribund			Terminal body weight (g):	408.0
Tissue	Gross observations / Comments			Correlated microscopic observations	
Liver	. . . . . Thick, Red, +3			M-Leukemia, mononuclear, Contributory.	
Spleen	. . . . . Enlarged, 90-112 mm, Dark Red, +3			M-Leukemia, mononuclear, Contributory.	
Testes	. . . . . Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.	
Animal: 6833F518		Sex: Male	Group: 2	Dose level:	2 g/m3
Day of death: 647 Dosing phase	Status: Sacrificed moribund			Terminal body weight (g):	407.4
Tissue	Gross observations / Comments			Correlated microscopic observations	
Skin	. . . . . Crust, Dorsal, >113 mm, Mottled, Firm/ Irregular			Necrosis, Marked.	
				N-Sarcoma, histiocytic, Incidental.	
Mammary gland	. . . . . Mass, Bilateral, 21-45 mm, Red, Firm/ R-6 and L-6 Single Irregular			(Muscle, skeletal) N-Sarcoma, histiocytic, Incidental.	
Lungs	. . . . . Discolored, All Lobes, Diffuse, Mottled, +2			N-Leukemia, mononuclear - capillary involvement, Contributory.	
Liver	. . . . . Mass, Right caudal, 3-5 mm, Pale, Firm/ 1 Round			Hyperplasia, alveolar epithelial, focal, Minimal.	
	. . . . . Discolored, Diffuse, Mottled, +3			M-Leukemia, mononuclear, Incidental.	
Testes	. . . . . Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.	
Muscle, skeletal	. . . . . Mass, Dorsal, 46-67 mm, Mottled/ Irregular			N-Sarcoma, histiocytic, Incidental.	
Animal: 6833F519		Sex: Male	Group: 2	Dose level:	2 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice			Terminal body weight (g):	416.2
Tissue	Gross observations / Comments			Correlated microscopic observations	
Skin	. . . . . Scar, Foot, +2/ Rear Left Foot			Fibrosis, Moderate.	
	. . . . . Small, Left, Diffuse, +4			Atrophy, Marked.	
Testes	. . . . . Enlarged, Right, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.	

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Animal: 6833F520	Sex: Male	Status: Sacrificed moribund	Group: 2	Dose level: 2 g/m3
Day of death: 729 Dosing phase				Terminal body weight (g): 324.1
Tissue	Gross observations / Comments			Correlated microscopic observations
Thyroid glands	. . . Mass, Right, 11-15 mm, Mottled, Firm, +3/ Diffuse Oval			M-Carcinoma, C-cell, Contributory.
Pituitary gland	. . . Mass, 3-5 mm, Firm, +2/ Diffuse Irregular			B-Adenoma, pars distalis, Incidental.
Spleen	. . . . . Enlarged, 46-67 mm, +3/ Diffuse			M-Leukemia, mononuclear, Incidental.
Testes	. . . . . Small, Right, 16-20 mm, Mottled, +4/ Diffuse			B-Adenoma, interstitial cell, Incidental.
Kidneys	. . . . . Enlarged, Bilateral, Diffuse, Mottled, +1			Nephropathy, chronic, Moderate.
Liver	. . . . . Mass, Median Lobe, 21-45 mm, Mottled, Firm, +2/ Irregular			Hepatodiaphragmatic nodule, Present.
Animal: 6833F521	Sex: Male	Status: Final phase sacrifice	Group: 2	Dose level: 2 g/m3
Day of death: 736 Dosing phase				Terminal body weight (g): 335.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	. . . . . Discolored, All Lobes, 0-2 mm, Red, +2/ Multi-focal Round			Hemorrhage, Minimal.
Spleen	. . . . . Enlarged, 90-112 mm, Dark Red, +3			M-Leukemia, mononuclear, Contributory.
Liver	. . . . . Discolored, 6-10 mm, Pale, +2/ Focus Irregular			Necrosis, Moderate.
Testes	. . . . . Thick, Red, Soft, +4			M-Leukemia, mononuclear, Contributory.
Tail	. . . . . Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
	. . . . . Mass, 11-15 mm, Mottled, Firm, +3/ Single Irregular			Inflammation, mixed, Moderate.
				Hyperplasia/hyperkeratosis, Marked.
Animal: 6833F522	Sex: Male	Status: Sacrificed moribund	Group: 2	Dose level: 2 g/m3
Day of death: 689 Dosing phase				Terminal body weight (g): 377.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	. . . . . Enlarged, 90-112 mm, +3/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes	. . . . . Discolored, Bilateral, Mottled, +3			B-Adenoma, interstitial cell, Incidental.

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Animal: 6833F523	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 408.3	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	Discolored, Right, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Lungs	Discolored, Left, Patchy, Mottled, +2/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Lungs	Discolored, 0-2 mm, Red, Soft, +2/ Multifocal Rounda	Hemorrhage, Minimal.	
Animal: 6833F524	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 395 Dosing phase	Status: Found Dead	Terminal body weight (g): 479.0	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, All Lobes, Diffuse, Mottled, +4/ Dark Red	Congestion, Moderate.	
Animal: 6833F525	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 393.6	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	Small, Left, Diffuse, Mottled, +2	B-Adenoma, interstitial cell, Incidental.	
Epididymis	Discolored, Right, Diffuse, Mottled, +2	B-Adenoma, interstitial cell, Incidental.	
Adrenal glands	Small, Left, +2	Atrophy, Mild.	
Adrenal glands	Mass, Right, 16-20 mm, Mottled Brown, Firm, +3/ Diffuse	B-Pheochromocytoma, complex, benign, Incidental.	
Lymph node other	Enlarged, Renal, 3-5 mm, +2/ Diffuse	Infiltration, histiocytic, Marked.	
Animal: 6833F526	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 362.5	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen	Enlarged, 68-89 mm, +3/ Diffuse	M-Leukemia, mononuclear, Incidental.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Thyroid glands	Mass, Right, 6-10 mm, Dark Red, Firm, +3/ Diffuse Irregular	B-Adenoma, C-cell, Incidental.	
Animal: 6833F527	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 576 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 957.5	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen	Enlarged, 90-112 mm, Dark Red, Firm, +4	M-Leukemia, mononuclear, Incidental.	

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Animal: 6833F527	Sex: Male	Status: Sacrificed moribund	Group: 2	Dose level: 2 g/m3
Day of death: 576 Dosing phase				Terminal body weight (g): 357.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver	Discolored, Diffuse, Yellow, Friable, +4/irregular, pale			M-Leukemia, mononuclear, Incidental.
Testes	Mass, Bilateral, Mottled, Soft/ Irregular, diffuse			B-Adenoma, interstitial cell, Incidental.
Seminal vesicle	Small, 6-10 mm			Atrophy, Mild.
Lungs	Discolored, Left Lobe, 3-5 mm, Pale, Soft, +1/ Single, round			Hyperplasia, alveolar epithelial, focal, Minimal.
Animal: 6833F528	Sex: Male	Status: Sacrificed moribund	Group: 2	Dose level: 2 g/m3
Day of death: 478 Dosing phase				Terminal body weight (g): 309.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	Enlarged, Diffuse, +3			M-Leukemia, mononuclear, Contributory.
Testes	Mass, Right, 6-10 mm, +2/ Mottled Yellow			B-Adenoma, interstitial cell, Incidental.
Animal: 6833F529	Sex: Male	Status: Sacrificed moribund	Group: 2	Dose level: 2 g/m3
Day of death: 486 Dosing phase				Terminal body weight (g): 444.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Discolored, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Mammary gland	Mass, Right, 90-112 mm, Firm			B-Fibroma, Incidental.
Animal: 6833F530	Sex: Male	Status: Sacrificed moribund	Group: 2	Dose level: 2 g/m3
Day of death: 707 Dosing phase				Terminal body weight (g): 329.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Cavities	Fluid, Thoracic, 2.1-5.0 ml, Yellow, Watery/ Yellow/Pink			No correlation entry made
Heart	Discolored, Atrium Bilateral, Diffuse, Mottled, +3			Thrombus, Moderate.
Thyroid glands	Enlarged, Left, 6-10 mm, Red, Firm/ Oval			M-Carcinoma, C-cell, Incidental.
Lungs	Discolored, Diffuse, Mottled Red, +2			N-Leukemia, mononuclear - capillary involvement, Contributory.
Ileum	Discolored, Dark, Soft, +3			Examined; no correlation found
Cecum	Discolored, Dark, Soft, +4			Examined; no correlation found
Kidneys	Discolored, Bilateral, Diffuse, Mottled Brown, +3			Nephropathy, chronic, Mild.

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Animal: 6833F530	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 707 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 329.6
Tissue	Gross observations / Comments		Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Mottled, Friable, +3/ Pale		Necrosis, Mild.
			Vacuolization, cytoplasmic, Moderate.
Pituitary gland . . . . .	Discolored, 0-2 mm, Dark Red/ Focus		B-Adenoma, pars distalis, Incidental.
Animal: 6833F531	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 695 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 355.2
Tissue	Gross observations / Comments		Correlated microscopic observations
Brain . . . . .	Deformity, 6-10 mm, +2		Compression, Mild.
Pituitary gland . . . . .	Mass, 6-10 mm, Dark Red, +2/ Diffuse Irregular		B-Adenoma, pars distalis, Incidental.
Testes . . . . .	Small, Right, Patchy, Mottled, +1		Atrophy, Marked.
Epididymis . . . . .	Small, Right, +1		Atrophy, Minimal.
Lymph node other . . . . .	Enlarged, Renal, 6-10 mm, +2/ Bilateral Multiple Irregular		Dilatation, sinusoidal, Marked.
Animal: 6833F532	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 463 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 314.7
Tissue	Gross observations / Comments		Correlated microscopic observations
Lungs . . . . .	Discolored, Diffuse, Red, +2		Examined; no correlation found
Bronchial (TBLN) . . . . .	Discolored, Red, +2		N-Leukemia, mononuclear, Incidental.
Spleen . . . . .	Enlarged, Diffuse, +3		M-Leukemia, mononuclear, Contributory.
Animal: 6833F533	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 688 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 388.3
Tissue	Gross observations / Comments		Correlated microscopic observations
Spleen . . . . .	Enlarged, 90-112 mm, +4/ diffuse		M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Mass, Right, 6-10 mm, Pale, Soft, +3/ irregular		B-Adenoma, interstitial cell, Incidental.
	Mass, Left, 0-2 mm, Pale, Soft, +2/ irregular		B-Adenoma, interstitial cell, Incidental.
Liver . . . . .	Enlarged, Diffuse, +4		M-Leukemia, mononuclear, Contributory.
Pancreatic LN . . . . .	Enlarged, 11-15 mm, +3		N-Leukemia, mononuclear, Incidental.

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Animal: 6833F534	Sex: Male	Status: Sacrificed moribund	Group: 2	Dose level: 2 g/m3
Day of death: 644 Dosing phase				Terminal body weight (g): 247.0
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Mottled, +3			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Bilateral, Patchy, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Animal: 6833F535	Sex: Male	Status: Final phase sacrifice	Group: 2	Dose level: 2 g/m3
Day of death: 736 Dosing phase				Terminal body weight (g): 409.1
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Mottled, +2			M-Leukemia, mononuclear, Incidental.
Spleen . . . . .	Enlarged, 46-67 mm, +1			M-Leukemia, mononuclear, Incidental.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Lungs . . . . .	Discolored, 0-2 mm, Red/ Multifocal Round			Hemorrhage, Mild.
Animal: 6833F536	Sex: Male	Status: Final phase sacrifice	Group: 2	Dose level: 2 g/m3
Day of death: 737 Dosing phase				Terminal body weight (g): 340.7
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs . . . . .	Mass, Left Lobe, 6-10 mm, Pale, Firm/ Flat			Metaplasia, squamous - alveolar epithelium, Moderate.
Bronchial (TBLN) .	Discolored, Diffuse, Red, +3			Hemorrhage, Mild.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Seminal vesicle . .	Enlarged, Left, +2			B-Adenoma, interstitial cell, Incidental.
Animal: 6833F537	Sex: Male	Status: Sacrificed moribund	Group: 2	Dose level: 2 g/m3
Day of death: 683 Dosing phase				Terminal body weight (g): 338.3
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver . . . . .	Discolored, 0-2 mm, Pale, +/- Patchy			M-Leukemia, mononuclear, Contributory.
Pituitary gland . .	Nodule, 0-2 mm, Dark, +1/ Oval			Cyst, Mild.
Spleen . . . . .	Enlarged, 68-89 mm, +2/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Bilateral, Patchy, Mottled, +2			B-Adenoma, interstitial cell, Incidental.



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Animal: 6833F542	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 365.4	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Liver . . . . .	Discolored, Diffuse, Mottled, +3	Examined; no correlation found	
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Animal: 6833F543	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 652 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 325.3	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mammary gland . . . . .	Mass, Left, 21-45 mm, Pale, Firm/ Ing Irregular	N-Sarcoma, histiocytic, Incidental.	
Skin . . . . .	Mass, Thoracic, 46-67 mm, Pale, Firm/ SubQ	N-Sarcoma, histiocytic, Incidental.	
Tiss.not specifi . . . . .	Adhesion, Ribs, Pale, Firm, +3/ Muscle	N-Sarcoma, histiocytic, Incidental.	
Mediastinal LN . . . . .	Mass, Fat, 21-45 mm, Pale, +3/ Abdomen	N-Sarcoma, histiocytic, Incidental.	
Lungs . . . . .	Enlarged, 3-5 mm, Mottled, Firm, +2/ Irregular	N-Sarcoma, histiocytic, Incidental.	
Liver . . . . .	Nodule, Right, 0-2 mm, Pale, Firm/ Single Round	N-Sarcoma, histiocytic, Contributory.	
Kidneys . . . . .	Discolored, Bilateral, Diffuse, Pale, +2	M-Sarcoma, histiocytic, Incidental.	
Testes . . . . .	Nodule, Left, 0-2 mm, Pale, Firm/ Single Round	Degeneration, hyaline droplet, Marked.	
Mesenteric LN . . . . .	Discolored, Bilateral, Mottled, +3	Examined; no correlation found	
Bone, other . . . . .	Enlarged, 21-45 mm, Pale, +3	B-Adenoma, interstitial cell, Incidental.	
Muscle, skeletal . . . . .	Mass, Left Hind Limb, 21-45 mm, Pale, Firm	N-Sarcoma, histiocytic, Incidental.	
Animal: 6833F544	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 668 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 352.7	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Thyroid glands . . . . .	Discolored, Left, 0-2 mm, Purple, +1/ Foci Round	B-Adenoma, C-cell, Incidental.	
Lungs . . . . .	Discolored, All Lobes, 0-2 mm, Dark Red, +3/ Multifocal Round	Hemorrhage, Moderate.	

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Animal: 6833F544	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 668 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 352.7
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen	Enlarged, 90-112 mm, Dark Red, +3	M-Leukemia, mononuclear, Contributory.	
	Discolored, 6-10 mm, Pale, +3/ Multiple Round	M-Leukemia, mononuclear, Contributory.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
	Enlarged, Right, 21-45 mm, Mottled, +3	8-Adenoma, interstitial cell, Incidental.	
Liver	Thick, Red, +3	M-Leukemia, mononuclear, Contributory.	
	Discolored, Left Lobe, 3-5 mm, Pale, +1/ Foci	Hyperplasia, hepatocellular, regenerative, Mild.	
Animal: 6833F545	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 542 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 367.1
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, All Lobes, 0-2 mm, Dark Red/ multifocal, Round	Hemorrhage, Mild.	
	Discolored, All Lobes, Diffuse, Mottled, +2	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen	Enlarged, Dark Red, +4	M-Leukemia, mononuclear, Contributory.	
	Nodule, 0-2 mm, White/ Round, Focus	M-Leukemia, mononuclear, Contributory.	
Kidneys	Discolored, Diffuse, Dark Red, +3	Examined; no correlation found	
Liver	Deformity, Diffuse, +3/ polypoid	M-Leukemia, mononuclear, Contributory.	
Testes	Mass, Bilateral, 6-10 mm, Mottled/ Irregular, multiple Round	B-Adenoma, interstitial cell, Incidental.	
Animal: 6838F546	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 707 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 350.7
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, Diffuse, Mottled Red, +2	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Tiss.not specifi	Thick, Abdomen, Firm, +3	Examined; no correlation found	
Testes	Discolored, Bilateral, Patchy, Mottled, +3/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Spleen	Enlarged, 68-89 mm, +2	M-Leukemia, mononuclear, Contributory.	
	Deformity, 6-10 mm, +2/ Focus, Irregular	Fibrosis, Marked.	

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Animal: 6833F546	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 707 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 350.7	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Prostate	Discolored, Irregular, Brown, +2	Inflammation, mixed, Moderate.	
Kidneys	Mass, Left, 16-20 mm, Pale, Firm	M-Carcinoma, renal tubule, Incidental.	
Pituitary gland	Mass, 6-10 mm, Mottled Red	B-Adenoma, pars distalis, Incidental.	
Skin	Alopecia, Head, 21-45 mm, +3	Inflammation, mixed, Moderate.	
	Crust, Head, 0-2 mm, Brown, +3/ Multiple	Inflammation, mixed, Moderate.	
Harderian gland	Discolored, Left, Diffuse, Pale, +2	Examined; no correlation found	
Animal: 6833F547	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 366.3	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Pituitary gland	Nodule, 0-2 mm, Dark, Firm, +2/ Diffuse Round	B-Adenoma, pars distalis, Incidental.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Animal: 6833F548	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 687 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 472.7	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mammary gland	Mass, Right, 46-67 mm, Mottled, Firm, +4/ 50.125g Round	B-Fibroma, Incidental.	
Lungs	Discolored, All Lobes, 0-2 mm, Red, +2/ Foci Round	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen	Enlarged, 46-67 mm, Dark Red, +2	M-Leukemia, mononuclear, Contributory.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Liver	Thick, Red, +4	M-Leukemia, mononuclear, Contributory.	
Animal: 6833F549	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 689 Dosing phase	Status: Found Dead	Terminal body weight (g): 288.9	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, Diffuse, Mottled, +3	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen	Enlarged, 68-89 mm	M-Leukemia, mononuclear, Contributory.	

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Animal: 6833F549	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 639 Dosing phase	Status: Found Dead	Terminal body weight (g): 288.9	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	(continued) Discolored, Left, Patchy, Mottled, +3/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Liver	Discolored, Diffuse, Mottled, +2	M-Leukemia, mononuclear, Contributory.	
Pituitary gland	. Nodule, Surface, 0-2 mm, Red, Firm/ Single Round	B-Adenoma, pars distalis, Incidental.	
Animal: 6833F550	Sex: Male	Group: 2	Dose level: 2 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 368.4	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	. Discolored, 0-2 mm, Red, Soft, +1/ Multifocal Round	Hemorrhage, Minimal.	
	Discolored, 0-2 mm, Pale, Soft, +1/ Multifocal Round	Hemorrhage, Minimal.	
Thyroid glands	. Mass, Right, 6-10 mm, Mottled, Firm	B-Adenoma, C-cell, Incidental.	
Parathyroid	. . . Enlarged, Left, 0-2 mm	No correlation entry made	
Testes	. . . . Enlarged, Bilateral, 21-45 mm, Mottled, +2/ Diffuse	B-Adenoma, interstitial cell, Incidental.	
Epididymis	. . . Small, Bilateral, +3	Atrophy, Moderate.	
Kidneys	. . . Discolored, Bilateral, Mottled Brown, +3	Nephropathy, chronic, Moderate.	
Liver	. . . . Discolored, 3-5 mm, Mottled, Soft, +2/ Multifocal	Angiectasis, Marked.	
Animal: 6835G601	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 382.8	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Eyes/optic nerve	. Discolored, Left, Opaque, +2	Cataract, Present.	
Testes	. . . . Discolored, Bilateral, Diffuse, Mottled, +4/ Irregular	B-Adenoma, interstitial cell, Incidental.	
	Enlarged, Left, 21-45 mm, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Lungs	. . . . Discolored, Diffuse, Mottled Red, +2	Examined; no correlation found	
Animal: 6835G602	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 368.3	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mediastinal LN	. . Enlarged, 6-10 mm, Red, +3/ Oval	Hemorrhage, Mild.	
Testes	. . . . Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	

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Animal: 6835602	Sex: Male	Group: 3	Dose Level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 368.3	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Tiss.not specifi	Anal AL Mass, 21-45 mm, Pale, Firm, +4/ Single Irregular	B-Fibroma, Incidental.	
Kidneys	Discolored, Bilateral, Diffuse, Mottled, +4	Nephropathy, chronic, Marked.	
Lymph node other	Enlarged, Renal, 6-10 mm, BROWN, +2/ 2 Oval	Infiltration, histiocytic, Moderate.	
Tail	Crust, 11-15 mm, BROWN, +3/ Irregular	Inflammation, mixed, Marked. Hyperplasia/hyperkeratosis, Moderate.	
Animal: 6835603	Sex: Male	Group: 3	Dose Level: 10 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 375.0	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, 0-2 mm, Red, +2/ Multiple Foci, Bilateral Diffuse Round	Examined; no correlation found	
Testes	Discolored, Bilateral, Patchy, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Seminal vesicle	Small, Bilateral, +2	Atrophy, Moderate.	
Animal: 6835604	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 657 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 334.8	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mandibular LN	Enlarged, 11-15 mm, Pale, Firm, +4/ Multiple Oval	N-Leukemia, mononuclear, Contributory.	
Salivary gland	Enlarged, Bilateral, 16-20 mm, Pale, Firm, +3/ Round	M-Leukemia, mononuclear, Incidental.	
Lymph node other	Enlarged, Axillary, 21-45 mm, Pale, Firm, +4/ Multiple Oval	N-Leukemia, mononuclear, Incidental.	
	Enlarged, Clavical, 6-10 mm, Pale, Firm, +4/ Multiple Oval	N-Leukemia, mononuclear, Incidental.	
Lungs	Node, All Lobes, 3-5 mm, Clear, Firm, +2/ Multiple Round	N-Leukemia, mononuclear - invasive involvement, Contributory.	
Muscle, skeletal	Discolored, Sternum, Diffuse, Pale, +3/ Irregular	M-Leukemia, mononuclear, Incidental.	
Spleen	Mass, 11-15 mm, Pale, Firm, +3/ Single Round	M-Leukemia, mononuclear, Contributory.	
Kidneys	Mass, Bilateral, 11-15 mm, White, Firm, +3/ Multiple Irregular	M-Leukemia, mononuclear, Contributory.	

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Animal: 68356604	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 657 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 334.8	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4 Small, Left, 6-10 mm, +3	B-Adenoma, interstitial cell, Incidental. Atrophy, Mild.	
Mediastinal LN . . . . .	Enlarged, 11-15 mm, Pale, +4/ Multiple	B-Adenoma, interstitial cell, Incidental.	
Mesenteric LN . . . . .	Enlarged, 16-20 mm, Pale, +4/ Multiple	N-Leukemia, mononuclear, Incidental.	
Seminal vesicle . . . . .	Thick, Left, 11-15 mm, Pale, +3	N-Leukemia, mononuclear, Incidental.	
Popliteal LN . . . . .	Enlarged, 6-10 mm, Pale, +3/ Multiple	M-Leukemia, mononuclear, Incidental.	
Pancreatic LN . . . . .	Enlarged, 21-45 mm, Pale, Firm, +4	N-Leukemia, mononuclear, Incidental.	
Animal: 68356605	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 354.7	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Skin . . . . .	Mass, Inguinal, 6-10 mm, White, Rubbery/ Single Round	Inflammation, mixed, Marked.	
Preputial gland . . . . .	Enlarged, Left, 3-5 mm, Tan, +2	Ectasia, Moderate.	
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Seminal vesicle . . . . .	Small, Bilateral, +3	Atrophy, Mild.	
Spleen . . . . .	Enlarged, 68-89 mm, Mottled, +3	M-Leukemia, mononuclear, Incidental.	
Liver . . . . .	Deformity, Parenchyma, 6-10 mm, Tan/ Single Depressed	Fibrosis, Mild.	
Kidneys . . . . .	Discolored, Diffuse, Mottled Red, Friable, +2	M-Leukemia, mononuclear, Incidental.	
Animal: 68356606	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 588 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 411.5	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen . . . . .	Enlarged, +2	M-Leukemia, mononuclear, Contributory.	
Lungs . . . . .	Discolored, All Lobes, 0-2 mm, Red, +2/ multiple, round, foci	N-Leukemia, mononuclear - capillary involvement, Incidental.	
Liver . . . . .	Enlarged, Single, Red	M-Leukemia, mononuclear, Contributory.	

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Animal: 68356606	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 588 Dosing phase				Terminal body weight (g): 411.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver . . . . .	Nodule, Median Lobe, 3-5 mm, Pale, Firm/ single, round			Hyperplasia, hepatocellular, regenerative, Minimal.
Testes . . . . .	Mass, Bilateral, Multiple, Mottled, Soft, +4/ Irregular			B-Adenoma, interstitial cell, Incidental.
Animal: 68356607	Sex: Male	Status: Final phase sacrifice	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase				Terminal body weight (g): 372.0
Tissue	Gross observations / Comments			Correlated microscopic observations
Skin . . . . .	Mass, Dorsal, 11-15 mm, White, Rubbery/ Single Round			B-Tumor, hair follicle, benign, Incidental.
Lungs . . . . .	Discolored, 0-2 mm, Tan/ Tan/White, Bilateral Multiple foci Round			Examined; no correlation found
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Seminal vesicle . . . . .	Small, Bilateral, +3/ Both			Atrophy, Mild.
Liver . . . . .	Nodule, Right, 3-5 mm, Tan, Firm/ Single Round			M-Sarcoma, undifferentiated, Incidental.
Animal: 68356608	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 694 Dosing phase				Terminal body weight (g): 319.0
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen . . . . .	Enlarged, 68-89 mm, +2			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Patchy, Mottled, +3/ Irregular			B-Adenoma, interstitial cell, Incidental.
Preputial gland . . . . .	Mass, Right, 11-15 mm, +2			Cyst, epithelial inclusion, Present.
Kidneys . . . . .	Nodule, Right, 0-2 mm, Yellow/ single, round			B-Adenoma, renal tubule, Incidental.
Animal: 68356609	Sex: Male	Status: Final phase sacrifice	Group: 3	Dose level: 10 g/m3
Day of death: 738 Dosing phase				Terminal body weight (g): 394.9
Tissue	Gross observations / Comments			Correlated microscopic observations
Kidneys . . . . .	Cyst, Left, 3-5 mm, Pale, +2/ Single Round			B-Adenoma, renal tubule, Incidental.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.

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Animal: 6835G610	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 368.2	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	Enlarged, Bilateral, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Lungs	Discolored, Diffuse, Mottled Red, +2	Hemorrhage, Minimal.	
Seminal vesicle	Small, Bilateral, +3	Atrophy, Moderate.	
Animal: 6835G611	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 437 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 290.7	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Eyes/optic nerve	Discolored, Diffuse, Yellow/ Pale	Examined; no correlation found	
Liver	Discolored, 0-2 mm, Yellow, Gritty/ Pale Multifocal Round	Examined; no correlation found	
Spleen	Enlarged, 68-89 mm	M-Leukemia, mononuclear, Contributory.	
Lungs	Discolored, 0-2 mm, Red/ Multifocal Round	Hemorrhage, Minimal.	
Brain	Discolored, Cerebellum, 3-5 mm/ Focus(2), Dark, Round,Oval	Hemorrhage, Moderate.	
Animal: 6835G612	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 633 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 317.1	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen	Enlarged, 68-89 mm, Dark Red, +3	M-Leukemia, mononuclear, Contributory.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Mediastinal LN	Enlarged, 6-10 mm, Pale, Firm, +3/ Single Oval	Examined; no correlation found	
Animal: 6835G613	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 374.6	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Lungs	Enlarged, Bilateral, +2	B-Adenoma, interstitial cell, Incidental.	
Lungs	Discolored, 0-2 mm, Red/ Multifocal Round	Examined; no correlation found	

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Animal: 6835G614	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 389.1
Tissue	Gross observations / Comments		Correlated microscopic observations
Liver . . . . .	Mass, Left Lobe, 16-20 mm, Red, +2/ Single Round		Hepatodiaphragmatic nodule, Present.
Skin . . . . .	Mass, Subcut Tiss, 21-45 mm, Pale, Firm, +3/ Single Irregular		M-Sarcoma, undifferentiated, Incidental.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4		B-Adenoma, interstitial cell, Incidental.
Cavities . . . . .	Fluid, Abdominal, 5.1-10 ml, Brown, +3		No correlation entry made
Mesentery . . . . .	Nodule, 3-5 mm, Pale, Firm, +4/ Multiple Round		M-Mesothelioma, malignant, Contributory.
Thyroid glands . . . . .	Enlarged, Right, 3-5 mm, Pale, Firm/ Patchy, Irregular		Hyperplasia, follicular cell, Moderate.
Animal: 6835G615	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 349.7
Tissue	Gross observations / Comments		Correlated microscopic observations
Eyes/optic nerve . . . . .	Crust, Left, Diffuse, Red, +1		No correlation entry made
Skin . . . . .	Crust, Dorsal, 16-20 mm, Brown, Firm/ White & Brown Single irregular		Hyperkeratosis, Moderate.
Lungs . . . . .	Nodule, Right caudal, 0-2 mm, Tan/ Single Round		B-Adenoma, bronchiolo-alveolar, Incidental.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3		B-Adenoma, interstitial cell, Incidental.
Seminal vesicle . . . . .	Small, Bilateral, +3		Atrophy, Mild.
Spleen . . . . .	Enlarged, 68-89 mm, +3		M-Leukemia, mononuclear, Incidental.
	Deformity, Parenchyma, 3-5 mm, Yellow/ Single Depressed		Fibrosis, Mild.
Liver . . . . .	Discolored, Diffuse, Mottled, Friable, +3		Necrosis, Mild.
			M-Leukemia, mononuclear, Incidental.
Animal: 6835G616	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 699 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 350.1
Tissue	Gross observations / Comments		Correlated microscopic observations
Mandibular LN . . . . .	Enlarged, 6-10 mm, +1/ Multiple Irregular		N-Leukemia, mononuclear, Incidental.
Mediastinal LN . . . . .	Enlarged, 6-10 mm, +1/ Irregular		N-Leukemia, mononuclear, Incidental.
Bronchial (TBLN) . . . . .	Enlarged, 6-10 mm, +2/ Diffuse		N-Leukemia, mononuclear, Incidental.

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Animal: 6835G616	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 699 Dosing phase				Terminal body weight (g): 350.1
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	(continued) Discolored, 0-2 mm, Red, +2/ Multiple Focus Round			Hemorrhage, Minimal.
Spleen	Enlarged, 90-112 mm, +2/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Patchy, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
	Small, Right, Diffuse, Mottled, +2			Atrophy, Moderate.
Liver	Thick, Diffuse, Mottled, +2			M-Leukemia, mononuclear, Contributory.
Animal: 6835G617	Sex: Male	Status: Final phase sacrifice	Group: 3	Dose level: 10 g/m3
Day of death: 735 Dosing phase				Terminal body weight (g): 359.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Discolored, Bilateral, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Seminal vesicle	Small, Bilateral, +3			Atrophy, Mild.
Spleen	Enlarged, 21-45 mm, +1			Congestion, Mild.
Mammary gland	Mass, Right, 11-15 mm, Tan, Rubbery/ Thoracic Single Round			(Skin) B-Fibroma, Incidental.
Animal: 6835G618	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 626 Dosing phase				Terminal body weight (g): 333.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver	Cyst, 6-10 mm, Pale, Soft, +2/ Single Round			Cyst, Moderate.
Spleen	Enlarged, 68-89 mm, Dark Red, +3			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Animal: 6835G619	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 633 Dosing phase				Terminal body weight (g): 321.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Adrenal glands	Enlarged, Right, 3-5 mm, +2/ Diffuse			B-Pheochromocytoma, benign, Incidental.
Spleen	Enlarged, 68-89 mm, +1/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Lymph node other	Enlarged, Renal, 3-5 mm, Dark, +1/ Left Renal Diffuse Oval			N-Leukemia, mononuclear, Incidental.

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Animal: 6835G620	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 626 Dosing phase				Terminal body weight (g): 334.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver	Thick, Diffuse, Mottled, +2			M-Leukemia, mononuclear, Contributory.
Pituitary gland	Discolored, Red, +1			Cyst, Mild.
Spleen	Enlarged, 68-89 mm, +1/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Lungs	Discolored, Diffuse, Mottled, +1			N-Leukemia, mononuclear - capillary involvement, Contributory.
Mediastinal LN	Discolored, Diffuse, Red, +1			Hemorrhage, Mild.
Lymph node other	Enlarged, Renal, 6-10 mm, Dark Red, +2/ Diffuse Oval			N-Leukemia, mononuclear, Incidental.
Animal: 6835G621	Sex: Male	Status: Final phase sacrifice	Group: 3	Dose level: 10 g/m3
Day of death: 738 Dosing phase				Terminal body weight (g): 350.0
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Enlarged, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Lungs	Discolored, 0-2 mm, Red/ Multiple foci, bilateral Round			Examined; no correlation found
Seminal vesicle	Small, Bilateral, +3			Atrophy, Moderate.
Preputial gland	Enlarged, Left, 6-10 mm, Yellow, +1			Ectasia, Moderate.
Animal: 6835G622	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 730 Dosing phase				Terminal body weight (g): 312.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	Enlarged, 68-89 mm, +2			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Seminal vesicle	Small, Bilateral, +2			No correlation entry made
Liver	Discolored, Friable, +2			M-Leukemia, mononuclear, Contributory.

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Animal: 6835G623	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 533 Dosing phase				Terminal body weight (g): 381.3
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Discolored, Irregular, Mottled, +1/ Patchy			B-Adenoma, interstitial cell, Incidental.
Skin	Crust, 21-45 mm/ Left back side			M-Sarcoma, undifferentiated, Contributory.
Animal: 6835G624	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 666 Dosing phase				Terminal body weight (g): 310.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	Discolored, 3-5 mm, Dark/ Multifocal Round			Hemorrhage, Mild.
Spleen	Enlarged, 68-89 mm, +2			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Left, Patchy, Mottled, +1/ Irregular			B-Adenoma, interstitial cell, Incidental.
	Discolored, Right, Patchy, Mottled, +3/ Irregular			B-Adenoma, interstitial cell, Incidental.
Animal: 6835G625	Sex: Male	Status: Found Dead	Group: 3	Dose level: 10 g/m3
Day of death: 651 Dosing phase				Terminal body weight (g): 323.9
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	Discolored, Right accessory, 0-2 mm, Dark Red, +1/ Focus Round			N-Leukemia, mononuclear - capillary involvement, Contributory.
Spleen	Enlarged, 68-89 mm, +2/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Patchy, Mottled, Soft, +3			B-Adenoma, interstitial cell, Incidental.
Epididymis	Discolored, Right, Dark, +2			Examined; no correlation found
Liver	Thick, Diffuse, Mottled, +3			M-Leukemia, mononuclear, Contributory.
Adrenal glands	Enlarged, Bilateral, Diffuse, +3			Hyperplasia, cortical, diffuse, Moderate.
Tiss.not specifi	Discolored, Cervical, 3-5 mm, White, Soft/ Patchy Irregular Subcutis			Mammary tissue, Present.
Lymph node other	Enlarged, Renal, 3-5 mm, Dark, +2/ Diffuse Oval Bilateral			N-Leukemia, mononuclear, Incidental.
Pituitary gland	Nodule, 3-5 mm, Mottled			B-Adenoma, pars distalis, Incidental.

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Animal: 68356626	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 675 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 347.1
Tissue	Gross observations / Comments		Correlated microscopic observations
Spleen	Enlarged, 46-67 mm, +2/ Diffuse		M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Diffuse, Mottled, +3		B-Adenoma, interstitial cell, Incidental.
Animal: 68356627	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 683 Dosing phase	Status: Found Dead		Terminal body weight (g): 372.8
Tissue	Gross observations / Comments		Correlated microscopic observations
Testes	Discolored, Patchy, Mottled, +3/ Irregular		B-Adenoma, interstitial cell, Incidental.
Liver	Thick, +2		M-Leukemia, mononuclear, Contributory.
Adrenal glands	Enlarged, Right, 6-10 mm, +2		B-Pneohromocytoma, benign, Incidental.
Pituitary gland	Cyst, 0-2 mm, Pale, Soft/ Round, quantity=1		Cyst, Minimal.
	Discolored, 0-2 mm, Dark/ Focus (1), Round		Cyst, Minimal.
Animal: 68356628	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 798 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 378.2
Tissue	Gross observations / Comments		Correlated microscopic observations
Testes	Discolored, Left, Patchy, Mottled, +3/ Irregular		B-Adenoma, interstitial cell, Incidental.
	Enlarged, Right, Diffuse, Mottled, +2		B-Adenoma, interstitial cell, Incidental.
Animal: 68356629	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 653 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 316.6
Tissue	Gross observations / Comments		Correlated microscopic observations
Spleen	Enlarged, 68-89 mm/ Diffuse		M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Patchy, Mottled, +2		B-Adenoma, interstitial cell, Incidental.
Liver	Discolored, Diffuse, Mottled, +2		M-Leukemia, mononuclear, Contributory.
Lymph node other	Enlarged, Renal, 3-5 mm, Brown, +1/ Diffuse Oval Bilateral		N-Leukemia, mononuclear, Incidental.
Iliac LN	Enlarged, Bilateral, 11-15 mm, Tan, +2/ Diffuse Oval		N-Leukemia, mononuclear, Incidental.

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Animal: 68356630	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 366.6	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Spleen . . . . .	Deformity, 6-10 mm, Pale, +2/ Depressed	Fibrosis, Mild.	
Epididymis . . . . .	Small, Bilateral, +3	Atrophy, Mild.	
Pituitary gland . . . . .	Cyst, 0-2 mm, Clear, Soft, +1/ Single Round	Examined; no correlation found	
Animal: 68356631	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 695 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 362.6	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mandibular LN . . . . .	Enlarged, 6-10 mm, +1	N-Leukemia, mononuclear, Incidental.	
Mammary gland . . . . .	Discolored, Left, 11-15 mm, Dark, +3/ Diffuse Left thoracic	Cyst, Present.	
Skin . . . . .	Crust, Thoracic, 16-20 mm, +2/ Right Thoracic	Hyperkeratosis, Marked.	
Bronchial (TBLN) . . . . .	Enlarged, 6-10 mm, +1	N-Leukemia, mononuclear, Incidental.	
Spleen . . . . .	Discolored, 16-20 mm, Pale/ Patchy Irregular	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Discolored, Patchy, Mottled, +3/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Liver . . . . .	Mass, Median Lobe, 6-10 mm, Pale, Firm/ Single Round	B-Adenoma, hepatocellular, Incidental.	
Pancreatic LN . . . . .	Enlarged, 6-10 mm, +2	N-Leukemia, mononuclear, Incidental.	
Animal: 68356632	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 687 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 323.8	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Thyroid glands . . . . .	Discolored, Right, 0-2 mm, Dark/ 1-focus Round	B-Adenoma, C-cell, Incidental.	
Spleen . . . . .	Enlarged, 68-89 mm, +2	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Discolored, Left, Patchy, Mottled, +1/ Irregular	B-Adenoma, interstitial cell, Incidental.	
	Discolored, Right, Patchy, Mottled, +3/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Liver . . . . .	Discolored, 0-2 mm, Red/ Multifocal Round	M-Leukemia, mononuclear, Contributory.	

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Animal: 68356633	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 689 Dosing phase				Terminal body weight (g): 420.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Mammary gland . . .	Mass, Left, 46-67 mm, Firm, +4			B-Fibroma, Incidental.
Testes . . . . .	Discolored, Patchy, Mottled, +3/ Irregular			B-Adenoma, interstitial cell, Incidental.
Spleen . . . . .	Enlarged, 46-67 mm, +1			M-Leukemia, mononuclear, Incidental.
Animal: 68356634	Sex: Male	Status: Final phase sacrifice	Group: 3	Dose level: 10 g/m3
Day of death: 735 Dosing phase				Terminal body weight (g): 396.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Pituitary gland . . .	Discolored, Patchy, Mottled, +2			B-Adenoma, pars distalis, Incidental.
Testes . . . . .	Enlarged, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Kidneys . . . . .	Discolored, Bilateral, Diffuse, Mottled Brown, +4			Nephropathy, chronic, Moderate.
Liver . . . . .	Discolored, Diffuse, Mottled			M-Leukemia, mononuclear, Incidental.
Animal: 68356635	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 626 Dosing phase				Terminal body weight (g): 307.0
Tissue	Gross observations / Comments			Correlated microscopic observations
Skin . . . . .	Mass, Head, 11-15 mm, Red, Firm, +2/ Single Oval			Inflammation, mixed, Moderate.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
	Enlarged, Left, 21-45 mm, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Mandibular LN . . .	Enlarged, 11-15 mm, Pink, +3/ Multiple			Hyperplasia, lymphoid, Mild.
Animal: 68356636	Sex: Male	Status: Found Dead	Group: 3	Dose level: 10 g/m3
Day of death: 621 Dosing phase				Terminal body weight (g): 297.7
Tissue	Gross observations / Comments			Correlated microscopic observations
Mediastinal LN . . .	Enlarged, 3-5 mm			N-Leukemia, mononuclear, Incidental.
Bronchial (TBLN) . .	Enlarged, 6-10 mm			N-Leukemia, mononuclear, Incidental.
Lungs . . . . .	Discolored, 0-2 mm, Red, +3/ multifocal, round			Inflammation, acute, Minimal.
Spleen . . . . .	Enlarged, 46-67 mm			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Discolored, Left, Irregular, Mottled, +1/ patchy			B-Adenoma, interstitial cell, Incidental.
	Discolored, Left, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.

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Animal: 68356636	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 621 Dosing phase	Status: Found Dead		Terminal body weight (g): 297.7
Tissue	Gross observations / Comments		Correlated microscopic observations
Adrenal glands	. . . Enlarged, 6-10 mm, +2		M-Leukemia, mononuclear, Contributory.
Kidneys	. . . . . Discolored, 0-2 mm, White/ multifocal, round		Inflammation, acute, Moderate.
Iliac LN	. . . . . Enlarged, 11-15 mm		N-Leukemia, mononuclear, Contributory.
Lymph node other	. . . Enlarged, Renal, 6-10 mm		N-Leukemia, mononuclear, Contributory.
Popliteal LN	. . . Enlarged, 6-10 mm		N-Leukemia, mononuclear, Incidental.
Eyes/optic nerve	. . . Discolored, Bilateral, Patchy, White, +3		Mineralization, corneal stromal, Minimal.
Pituitary gland	. . . Nodule, 3-5 mm, Firm		B-Adenoma, pars distalis, Incidental.
Tiss.not specifi	. . . Mass, Right Foot, 6-10 mm, Firm		Inflammation, mixed, Marked.
Animal: 68356637	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 645 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 326.4
Tissue	Gross observations / Comments		Correlated microscopic observations
Mediastinal LN	. . . Enlarged, 6-10 mm, Pale, Firm, +2/ Single Oval		Examined; no correlation found
Thyroid glands	. . . Mass, Right, 21-45 mm, Mottled Red, Soft, +3/ Single Oval		M-Carcinoma, follicular cell, Incidental.
Lungs	. . . . . Discolored, All Lobes, Diffuse, Mottled Grey, +2		N-Leukemia, mononuclear - capillary involvement, Incidental.
Spleen	. . . . . Enlarged, 46-67 mm, Dark Red, +2		M-Leukemia, mononuclear, Contributory.
Liver	. . . . . Discolored, Diffuse, Mottled, +3		M-Leukemia, mononuclear, Contributory.
Testes	. . . . . Discolored, Bilateral, Patchy, Mottled, +3		B-Adenoma, interstitial cell, Incidental.
Pituitary gland	. . . Discolored, 3-5 mm, Purple, +2/ Foci Round		Examined; no correlation found
Animal: 68356638	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 392.6
Tissue	Gross observations / Comments		Correlated microscopic observations
Pituitary gland	. . . Discolored, 0-2 mm, Purple, +2/ Single Round		Cyst, Mild.
Spleen	. . . . . Enlarged, 46-67 mm, Dark Red, +2		M-Leukemia, mononuclear, Incidental.
Testes	. . . . . Discolored, Bilateral, Diffuse, Mottled, +4		B-Adenoma, interstitial cell, Incidental.

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Animal: 6835638	Sex: Male	Status: Final phase sacrifice	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase				Terminal body weight (g): 392.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Enlarged, Left, 21-45 mm, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Animal: 6835639	Sex: Male	Status: Final phase sacrifice	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase				Terminal body weight (g): 383.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	Discolored, 0-2 mm, White, +2/ Patchy			N-Leukemia, mononuclear - capillary involvement, Incidental.
Testes	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Spleen	Enlarged, 46-67 mm, +3/ Diffuse			M-Leukemia, mononuclear, Incidental.
Kidneys	Discolored, Bilateral, Diffuse, Mottled, +3/ Mottled Dark			Nephropathy, chronic, Moderate.
Liver	Discolored, Diffuse, Mottled, +2			Hyperplasia, biliary, Mild.
Animal: 6835640	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 576 Dosing phase				Terminal body weight (g): 291.4
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	Discolored, Left Lobe, 0-2 mm, Red, +1/ Round, 1 foci			N-Leukemia, mononuclear - capillary involvement, Contributory.
Spleen	Enlarged, 90-112 mm, +4			M-Leukemia, mononuclear, Contributory.
	Nodule, 0-2 mm, Pale, Firm, +1/ 1, oval			Fibrosis, Minimal.
Testes	Discolored, Left, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
	Discolored, Right, Diffuse, Mottled, +1			B-Adenoma, interstitial cell, Incidental.
Liver	Discolored, 0-2 mm, Red/ multifocal, round			M-Leukemia, mononuclear, Contributory.
Animal: 6835641	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 661 Dosing phase				Terminal body weight (g): 349.9
Tissue	Gross observations / Comments			Correlated microscopic observations
Mediastinal LN	Enlarged, 3-5 mm/ Multiple			Examined; no correlation found
Thyroid glands	Enlarged, Right, 6-10 mm			B-Adenoma, C-cell, Incidental.
Lungs	Nodule, Right caudal, 0-2 mm, Dark, Firm/ Round			Examined; no correlation found

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Animal: 6835G641	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 661 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 349.9
Tissue	Gross observations / Comments		Correlated microscopic observations
Spleen	Enlarged, 90-112 mm/ Diffuse (continued)		M-Leukemia, mononuclear, Contributory.
Lymph node other	Enlarged, Renal, 3-5 mm/ Multiple Oval		Examined; no correlation found
Iliac LN	Enlarged, Right, 3-5 mm		Dilatation, sinusoidal, Mild.
Pituitary gland	Discolored, 0-2 mm, Red/ Focus Round		Cyst, Minimal.
Animal: 6835G642	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 668 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 334.1
Tissue	Gross observations / Comments		Correlated microscopic observations
Spleen	Enlarged, 68-89 mm/ Diffuse		M-Leukemia, mononuclear, Contributory.
	Discolored, 6-10 mm, Mottled/ Round		M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Left, Diffuse, Mottled		B-Adenoma, interstitial cell, Incidental.
	Small, Right, Diffuse, Mottled		Atrophy, Mild.
Liver	Thick, Diffuse, Mottled		M-Leukemia, mononuclear, Contributory.
Animal: 6835G643	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 603 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 407.3
Tissue	Gross observations / Comments		Correlated microscopic observations
Testes	Mass, Bilateral, 21-45 mm, Mottled, +3/ multiple, irregular		B-Adenoma, interstitial cell, Incidental.
Mammary gland	Mass, 46-67 mm, Firm, +3/ single, round		B-Fibroma, Incidental.
Seminal vesicle	Small, 3-5 mm, Brown, +2		Atrophy, Mild.
Animal: 6835G644	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 518 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 353.4
Tissue	Gross observations / Comments		Correlated microscopic observations
Mediastinal LN	Enlarged, 6-10 mm, Pale/ Oval		N-Leukemia, mononuclear, Incidental.
Lungs	Discolored, 0-2 mm, Dark Red/ Multifocal, Round		Hemorrhage, Mild.
Spleen	Enlarged, 68-89 mm		M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Left, Irregular, Mottled, +1/ Patchy		B-Adenoma, interstitial cell, Incidental.

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Animal: 6835G644	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 518 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 853.4
Tissue	Gross observations / Comments		Correlated microscopic observations
Mesenteric LN . . . Enlarged, 11-15 mm	(continued)		N-Leukemia, mononuclear, Incidental.
Lymph node other . Enlarged, Renal, 11-15 mm			N-Leukemia, mononuclear, Incidental.
Pituitary gland . . Nodule, Surface, 3-5 mm, Pale, Firm			B-Adenoma, pars distalis, Incidental.
Iliac LN . . . . Enlarged, 6-10 mm			N-Leukemia, mononuclear, Incidental.
Animal: 6835G645	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 729 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 323.0
Tissue	Gross observations / Comments		Correlated microscopic observations
Testes . . . . . Enlarged, Left, 21-45 mm, Mottled, +3/ Diffuse			B-Adenoma, interstitial cell, Incidental.
	Discolored, Right, Diffuse, Mottled, +3		B-Adenoma, interstitial cell, Incidental.
Epididymis . . . . Enlarged, Left, +2/ Tail			Examined; no correlation found
Animal: 6835G646	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 640 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 356.0
Tissue	Gross observations / Comments		Correlated microscopic observations
Bronchial (TBLN) . Enlarged, 3-5 mm			N-Leukemia, mononuclear, Incidental.
Thyroid glands . . Enlarged, Left, 6-10 mm, +2			B-Adenoma, C-cell, Incidental.
Spleen . . . . . Enlarged, 90-112 mm, +4			M-Leukemia, mononuclear, Contributory.
Testes . . . . . Enlarged, Right, 21-45 mm			B-Adenoma, interstitial cell, Incidental.
	Discolored, Patchy, Mottled, +3		B-Adenoma, interstitial cell, Incidental.
Liver . . . . . Thick, +2			M-Leukemia, mononuclear, Contributory.
Adrenal glands . . Enlarged, Right, 6-10 mm, +3			B-Pheochromocytoma, benign, Incidental.
Animal: 6835G647	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 401.1
Tissue	Gross observations / Comments		Correlated microscopic observations
Testes . . . . . Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
	Enlarged, Bilateral, +2		B-Adenoma, interstitial cell, Incidental.
Liver . . . . . Discolored, Median Lobe, 0-2 mm, Pale/ 2-focus Round			Examined; no correlation found

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Animal: 68356647	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 401.1	
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Tissue	Gross observations / Comments	Correlated microscopic observations	
	(continued)		
Pituitary gland	. Discolored, 3-5 mm, Dark, Soft/ Focus Round	B-Adenoma, pars distalis, Incidental.	
Brain	. . . . . Deformity, 3-5 mm/ Depressed	Compression, Minimal.	
Kidneys	. . . . . Discolored, Bilateral, Diffuse, Dark, +2	Nephropathy, chronic, Moderate.	
Animal: 68356648	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 268.6	
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Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen	. . . . . Enlarged, 46-67 mm, +2/ Diffuse	M-Leukemia, mononuclear, Incidental.	
Testes	. . . . . Small, Left, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Eyes/optic nerve	. Discolored, Right, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Seminal vesicle	. . Enlarged, Bilateral, 21-45 mm, Yellow, +4/ Diffuse	Cataract, Present.	
Kidneys	. . . . . Discolored, Bilateral, Diffuse, Mottled, +3	Dilatation, Marked.	
Animal: 68356649	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 349.5	
-----			
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mammary gland	. . Mass, Left, 21-45 mm, Firm	B-Fibroma, Incidental.	
Testes	. . . . . Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Liver	. . . . . Enlarged, Left, +1	B-Adenoma, interstitial cell, Incidental.	
	. . . . . Discolored, 6-10 mm, Pale/ 2 Focus Round	Hyperplasia, hepatocellular, regenerative, Mild.	
	. . . . . Discolored, Diffuse, Mottled, Friable, +3	M-Leukemia, mononuclear, Incidental.	
Spleen	. . . . . Enlarged, 46-67 mm	M-Leukemia, mononuclear, Incidental.	
Animal: 68356650	Sex: Male	Group: 3	Dose level: 10 g/m3
Day of death: 625 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 341.9	
-----			
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	. . . . . Discolored, Left, Patchy, Mottled, +1/ Patchy	Hyperplasia, interstitial cell, Present.	
Brain	. . . . . Deformity, 6-10 mm, +2/ Irregular	Compression, Marked.	

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Animal: 6835G650	Sex: Male	Status: Sacrificed moribund	Group: 3	Dose level: 10 g/m3
Day of death: 625 Dosing phase				Terminal body weight (g): 341.9
Tissue	Gross observations / Comments			Correlated microscopic observations
Pituitary gland	(continued) Deformity, 6-10 mm, Dark Red, +3/ Irregular			B-Adenoma, pars distalis, Incidental.
Animal: 6837H701	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 695 Dosing phase				Terminal body weight (g): 253.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Aorta	Enlarged, +1			Dilatation, Present.
Kidneys	Mineralization, Diffuse, Mottled, +4			Nephropathy, chronic, Marked.
Liver	Discolored, Diffuse, Mottled, +1			Hyperplasia, biliary, Moderate.
Testes	Discolored, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Animal: 6837H702	Sex: Male	Status: Final phase sacrifice	Group: 4	Dose level: 20 g/m3
Day of death: 795 Dosing phase				Terminal body weight (g): 982.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	Discolored, All Lobes, Diffuse, Red, +3			Examined; no correlation found
Testes	Discolored, Bilateral, Diffuse, Mottled, +4 Enlarged, Bilateral, 21-45 mm, Mottled, +4			B-Adenoma, interstitial cell, Incidental. B-Adenoma, interstitial cell, Incidental.
Animal: 6837H703	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 661 Dosing phase				Terminal body weight (g): 435.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Cavities	Fluid, Abdominal, >20 ml, Brown, Watery			No correlation entry made
Spleen	Discolored, Diffuse, Pale, +2			Examined; no correlation found
Liver	Hernia, Median Lobe, Round, Pale, +2 Discolored, All Lobes, Diffuse, Pale, +3			Hepatodiaphragmatic nodule, Present. M-Leukemia, mononuclear, Contributory.
Tiss.not specifi	Nodule, Fat, 0-2 mm, Brown, +4/ Multiple Round			M-Mesothelioma, malignant, Contributory.
Testes	Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Epididymis	Nodule, Bilateral, 0-2 mm, Brown, +4/ Multiple Round			M-Mesothelioma, malignant, Contributory.
Duodenum	Discolored, Diffuse, Dark Red, +3			Examined; no correlation found
Kidneys	Discolored, Bilateral, Diffuse, Dark Red, +4			Nephropathy, chronic, Moderate.

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Animal: 6837H704	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 397.1	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mammary gland . . . . .	Mass, Left, 46-67 mm, Mottled, Firm, +3/ Single, Irregular, Lower	8-Fibroma, Incidental.	
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Pituitary gland . . . . .	Enlarged, Left, 21-45 mm, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
	Discolored, 3-5 mm, Purple, +3/ Patchy	B-Adenoma, pars distalis, Incidental.	
Animal: 6837H705	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 399.2	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mediastinal LN . . . . .	Enlarged, 3-5 mm, +2/ Multiple, Irregular	N-Leukemia, mononuclear, Incidental.	
Bronchial (TBLN) . . . . .	Enlarged, 6-10 mm, +3/ Diffuse	N-Leukemia, mononuclear, Incidental.	
Spleen . . . . .	Enlarged, 68-89 mm, +3/ Diffuse	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Kidneys . . . . .	Discolored, Bilateral, Diffuse, Mottled, +2	Nephropathy, chronic, Moderate.	
Liver . . . . .	Thick, Diffuse, Mottled, +4	M-Leukemia, mononuclear, Contributory.	
Lymph node other . . . . .	Enlarged, Renal, 6-10 mm, Dark, +3/ Diffuse, Irregular	N-Leukemia, mononuclear, Incidental.	
Animal: 6837H706	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 356.7	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes . . . . .	Discolored, Bilateral, Patchy, Mottled, +3/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Kidneys . . . . .	Discolored, Bilateral, Diffuse, Mottled, +2	Nephropathy, chronic, Moderate.	
Colon . . . . .	Mass, 11-15 mm, Mottled, Firm/ Diffuse	B-Leiomyoma, Incidental.	
Animal: 6837H707	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 652 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 353.8	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen . . . . .	Enlarged, 90-112 mm/ Diffuse	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +2	B-Adenoma, interstitial cell, Incidental.	

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Animal: 6837H707	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 652 Dosing phase				Terminal body weight (g): 353.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Adrenal glands	. . . Enlarged, Left, 6-10 mm/ Diffuse			Thrombus, Marked.
Lymph node other	. . . Enlarged, Renal, 3-5 mm/ Oval			N-Leukemia, mononuclear, Incidental.
Popliteal LN	. . . Enlarged, 6-10 mm/ Diffuse Round			N-Leukemia, mononuclear, Incidental.
Animal: 6837H708	Sex: Male	Status: Final phase sacrifice	Group: 4	Dose level: 20 g/m3
Day of death: 737 Dosing phase				Terminal body weight (g): 346.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	. . . . . Enlarged, 68-89 mm, +3			M-Leukemia, mononuclear, Contributory.
Testes	. . . . . Enlarged, Bilateral, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Kidneys	. . . . . Discolored, Bilateral, Diffuse, Mottled Brown, +3			Nephropathy, chronic, Moderate.
Liver	. . . . . Discolored, Left, 3-5 mm, Pale/ Single, Irregular			Nephropathy, chronic, Moderate.
	. . . . . Thick, +3			M-Leukemia, mononuclear, Contributory.
Animal: 6837H709	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 657 Dosing phase				Terminal body weight (g): 362.3
Tissue	Gross observations / Comments			Correlated microscopic observations
Bronchial (TBLN)	. . . . . Enlarged, 6-10 mm, +1			N-Leukemia, mononuclear, Incidental.
Lungs	. . . . . Discolored, Diffuse, Mottled, +3			N-Leukemia, mononuclear - capillary involvement, Contributory.
Spleen	. . . . . Enlarged, 90-112 mm, +3			M-Leukemia, mononuclear, Contributory.
Testes	. . . . . Discolored, Patchy, Mottled, +4/ Irregular			B-Adenoma, interstitial cell, Incidental.
Pancreatic LN	. . . . . Enlarged, 3-5 mm, +2			N-Leukemia, mononuclear, Incidental.
Lymph node other	. . . . . Enlarged, Renal, 6-10 mm, +3			N-Leukemia, mononuclear, Incidental.
Iliac LN	. . . . . Enlarged, 3-5 mm, +1			N-Leukemia, mononuclear, Incidental.
Liver	. . . . . Thick, +1			M-Leukemia, mononuclear, Contributory.

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Animal: 6837H710	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 688 Dosing phase				Terminal body weight (g): 305.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Skin	Crust, Abdominal, 3-5 mm, Dark, +1/ Right Patchy Round			B-Tumor, basal cell, benign, Incidental.
Testes	Discolored, Left, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Thyroid glands	Discolored, Right, Patchy, Mottled, +1/ Irregular			B-Adenoma, interstitial cell, Incidental.
	Enlarged, Right, 16-20 mm, +4			M-Carcinoma, follicular cell, Incidental.
Animal: 6837H711	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 703 Dosing phase				Terminal body weight (g): 358.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Brain	Deformity, 3-5 mm, +3			Compression, Mild.
Pituitary gland	Enlarged, 3-5 mm, Purple, +3/ Round			B-Adenoma, pars distalis, Incidental.
Testes	Discolored, Right, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
	Enlarged, Right, 21-45 mm, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Mammary gland	Mass, Left, 11-15 mm, Mottled, Firm, +2/ Upper Left Single Oval			Ectasia, Marked.
Animal: 6837H712	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 610 Dosing phase				Terminal body weight (g): 348.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Thymus	Discolored, Diffuse, Dark Red, +3			Hemorrhage, Mild.
Lungs	Nodule, 3-5 mm, White, +2/ Multiple, Pale, Round			(Pancreas) M-Carcinoma, ductal cell, Contributory.
Spleen	Nodule, 3-5 mm, Yellow/ Single, Round			(Pancreas) M-Carcinoma, ductal cell, Contributory.
Liver	Nodule, 3-5 mm, Yellow, +2/ Multiple, Round			(Pancreas) M-Carcinoma, ductal cell, Contributory.
Kidneys	Enlarged, Left, 21-45 mm, Yellow, Firm, +3/ Irregular			(Pancreas) M-Carcinoma, ductal cell, Contributory.
	Discolored, Right, Patchy, Pale, +3/ Irregular			(Pancreas) M-Carcinoma, ductal cell, Contributory.
Adrenal glands	Enlarged, Right, 3-5 mm, +2/ Round			(Pancreas) M-Carcinoma, ductal cell, Contributory.
Mesentery	Nodule, 3-5 mm, Pale, Firm, +3/ Multiple, Round			(Pancreas) M-Carcinoma, ductal cell, Contributory.
Epididymis	Discolored, Bilateral, Yellow, +3			(Pancreas) M-Carcinoma, ductal cell, Contributory.
Testes	Discolored, Bilateral, Mottled, +3/ Purple			B-Adenoma, interstitial cell, Incidental.

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Animal: 6837H712		Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 610 Dosing phase	Status: Sacrificed moribund			Terminal body weight (g): 348.6
Tissue	Gross observations / Comments			Correlated microscopic observations
	(continued)			
Tiss.not specifi	Module, Peritoneal Surface, 3-5 mm, +4/ Multiple, Confluent			(Pancreas) M-Carcinoma, ductal cell, Contributory.
	Mass, Peritoneal Surface, 21-45 mm, +4/ Multiple, Confluent			(Pancreas) M-Carcinoma, ductal cell, Contributory.
Animal: 6837H713		Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 716 Dosing phase	Status: Sacrificed moribund			Terminal body weight (g): 301.4
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Discolored, Right, Patchy, Mottled, +2/ Irregular			B-Adenoma, interstitial cell, Incidental.
Spleen	Enlarged, 46-67 mm, Dark Red, +2			M-Leukemia, mononuclear, Contributory.
Liver	Thick, Mottled, +3			M-Leukemia, mononuclear, Contributory.
Kidneys	Discolored, Irregular, Dark Red, +3/ 1-4 Foci			M-Leukemia, mononuclear, Contributory.
Lymph node other	Discolored, Bilateral, Diffuse, Brown, +4			Nephropathy, chronic, Marked.
Prostate	Enlarged, Renal, 6-10 mm, Pale, +3/ Right Oval			Sinus plasmacytosis, Marked.
Pituitary gland	Enlarged, 11-15 mm, Mottled, +3			Inflammation, mixed, Marked.
Brain	Enlarged, 6-10 mm, Mottled, +4/ Round			B-Adenoma, pars distalis, Incidental.
	Deformity, 6-10 mm			Compression, Moderate.
Animal: 6837H714		Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice			Terminal body weight (g): 335.0
Tissue	Gross observations / Comments			Correlated microscopic observations
Mammary gland	Mass, Right, 21-45 mm, Tan, Caseous/ Irregular, soft,			(Skin) B-Keratoacanthoma, Incidental.
Bronchial (TBLN)	Discolored, Diffuse, Red, +2			Hemorrhage, Mild.
Lungs	Discolored, 0-2 mm, Pale, Soft, +2/ Multifocal			Examined; no correlation found
Testes	Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
	Enlarged, Left, 21-45 mm, Mottled, +2/ Oval			B-Adenoma, interstitial cell, Incidental.
Kidneys	Discolored, Bilateral, Patchy, Mottled, +2			Nephropathy, chronic, Marked.
Pituitary gland	Discolored, 3-5 mm, Mottled, Soft/ Single			Hemorrhage, Moderate.

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Animal: 6837H715	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 626 Dosing phase				Terminal body weight (g): 365.1
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	Enlarged, 90-112 mm, +3/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Liver	Thick, Diffuse, Mottled, +3			M-Leukemia, mononuclear, Contributory.
Pituitary gland	Enlarged, 3-5 mm, Pink, +2/ Diffuse			Examined; no correlation found
Animal: 6837H716	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 471 Dosing phase				Terminal body weight (g): 411.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Zybal's gland	Mass, Right, 21-45 mm, Firm/ Mottled Tan			M-Carcinoma, squamous cell, Incidental.
Animal: 6837H717	Sex: Male	Status: Final phase sacrifice	Group: 4	Dose level: 20 g/m3
Day of death: 737 Dosing phase				Terminal body weight (g): 371.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Enlarged, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Seminal vesicle	Small, Bilateral, +3			Atrophy, Moderate.
Spleen	Discolored, Parenchyma, Patchy, Tan, +1/ Irregular			Examined; no correlation found
Animal: 6837H718	Sex: Male	Status: Found Dead	Group: 4	Dose level: 20 g/m3
Day of death: 727 Dosing phase				Terminal body weight (g): 349.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	Enlarged, Right, 21-45 mm, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Mammary gland	Small, Left, 11-15 mm, Pale, +2			Atrophy, Moderate.
	Mass, Right, 46-67 mm, Mottled, Firm, +3/ Single Oval Lower Right			B-Fibroadenoma, Incidental.
Tiss.not specifi	Enlarged, Round, Pale, +3/ Bilateral Cirum Anal GI			Cyst, Moderate.
Liver	Hernia, Left Lobe, 11-15 mm, Red, +2			Examined; no correlation found
	Thick, All Lobes, Red, +4			Examined; no correlation found
Seminal vesicle	Enlarged, Bilateral, 21-45 mm, Yellow, +4			Dilatation, Moderate.
Prostate	Enlarged, 21-45 mm, Mottled, +4			Inflammation, mixed, Moderate.

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Animal: 6837H718	Sex: Male	Status: Found Dead	Group: 4	Dose level: 20 g/m3
Day of death: 727 Dosing phase				Terminal body weight (g): 349.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Urinary bladder	. . . Enlarged, 21-45 mm, Dark Red, +4/ Oval			Hemorrhage, Marked.
Cavities	. . . . Fluid, Thoracic, 2.1-5.0 ml, Red, +3			No correlation entry made
Animal: 6837H719	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 518 Dosing phase				Terminal body weight (g): 365.4
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	. . . . Enlarged, 68-89 mm, +3			M-Leukemia, mononuclear, Contributory.
Testes	. . . . Discolored, Left, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Lungs	. . . . Discolored, Diffuse, Pale, +2			N-Leukemia, mononuclear - capillary involvement, Contributory.
Animal: 6837H720	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 633 Dosing phase				Terminal body weight (g): 301.7
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver	. . . . Thick, Diffuse, Mottled, +1			M-Leukemia, mononuclear, Contributory.
Spleen	. . . . Enlarged, 68-89 mm, +2/ Diffuse			M-Leukemia, mononuclear, Contributory.
	Discolored, 6-10 mm, Pink, +1/ Patchy			Necrosis, Moderate.
Testes	. . . . Discolored, Bilateral, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Thyroid glands	. . . Enlarged, Left, 6-10 mm, Tan, Firm, +3/ Oval Diffuse			M-Carcinoma, follicular cell, Incidental.
Lungs	. . . . Discolored, 0-2 mm, Dark Red, +2/ Diffuse Round			N-Leukemia, mononuclear - capillary involvement, Contributory.
Animal: 6837H721	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 692 Dosing phase				Terminal body weight (g): 362.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	. . . . Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Bone, other	. . . . Enlarged, Leg Joint, +2			M-Sarcoma, NOS, Incidental.

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Animal: 6837H722	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 335.5	
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Tissue	Gross observations / Comments	Correlated microscopic observations	
Mandibular LN . . .	Enlarged, 6-10 mm	N-Leukemia, mononuclear, Incidental.	
Bronchial (TBLN) .	Enlarged, 6-10 mm	N-Leukemia, mononuclear, Incidental.	
Spleen . . . . .	Enlarged, 90-112 mm, +3	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Discolored, Bilateral, Patchy, Mottled, +3/ Irregular	B-Adenoma, interstitial cell, Incidental.	
Liver . . . . .	Thick, +2	M-Leukemia, mononuclear, Contributory.	
Kidneys . . . . .	Discolored, Bilateral, Diffuse, Mottled, +2/ Dark	Nephropathy, chronic, Moderate.	
Pancreatic LN . . .	Enlarged, 6-10 mm	N-Leukemia, mononuclear, Incidental.	
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Animal: 6837H723	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 581 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 333.5	
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Tissue	Gross observations / Comments	Correlated microscopic observations	
Thymus . . . . .	Mass, 21-45 mm, Soft, +4/ diffuse, irregular, all sites	M-Leukemia, mononuclear, Incidental.	
Bronchial (TBLN) .	Enlarged, 6-10 mm, +1/ diffuse, all sites	N-Leukemia, mononuclear, Incidental.	
Lungs . . . . .	Discolored, Diffuse, Mottled Red, +2	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen . . . . .	Enlarged, 90-112 mm, +3/ diffuse, all sites	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Small, Left, 6-10 mm/ diffuse	Atrophy, Mild.	
Mesenteric LN . . .	Mass, Right, 0-2 mm, Yellow, Soft, +2/ irregular	B-Adenoma, interstitial cell, Incidental.	
Liver . . . . .	Discolored, All Lobes, Mottled, +3	N-Leukemia, mononuclear, Incidental.	
Lymph node other .	Enlarged, Renal, Irregular, +2	M-Leukemia, mononuclear, Contributory.	
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Animal: 6837H724	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 351.4	
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Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs . . . . .	Nodule, Right caudal, 3-5 mm, Pale, Firm, +4/ Focus, Round	Hyperplasia, alveolar epithelial, focal, Mild.	
Liver . . . . .	Cyst, Left Lobe, 3-5 mm, Pale, Soft, +2/ Focus, round	Angiectasis, Mild.	

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Animal: 6837H724	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 351.4	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Liver	Discolored, All Lobes, Diffuse, Mottled, +4 (continued)	M-Leukemia, mononuclear, Contributory.	
Kidneys	Mass, Left, 11-15 mm, Pale, Firm, +4/ Focus, Round	M-Carcinoma, renal tubule, Contributory.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4 Enlarged, Right, 21-45 mm, Mottled, +3	B-Adenoma, interstitial cell, Incidental. B-Adenoma, interstitial cell, Incidental.	
Tiss.not specifi	Discolored, Irregular, Green, +3/ Right molar, Single	Examined; no correlation found	
Animal: 6837H725	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 271.3	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Eyes/optic nerve	Discolored, Right, Diffuse, Opaque, +3	Cataract, Present.	
Lungs	Discolored, Patchy, Mottled, +2/ Irregular, bilateral	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen	Enlarged, 90-112 mm, +4	M-Leukemia, mononuclear, Contributory.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +3	B-Adenoma, interstitial cell, Incidental.	
Liver	Discolored, Diffuse, Mottled Red, Friable, +3	M-Leukemia, mononuclear, Contributory.	
Kidneys	Discolored, Bilateral, Diffuse, Mottled Brown, +2	Nephropathy, chronic, Moderate.	
Pituitary gland	Discolored, 3-5 mm, Tan/ Oval, focus	M-Leukemia, mononuclear, Incidental.	
Animal: 6837H726	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 376.6	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, 0-2 mm, Red, +2/ Bilateral, Multiple foci, round	Examined; no correlation found	
Testes	Enlarged, Bilateral, 21-45 mm, Mottled, +4/ Diffuse	B-Adenoma, interstitial cell, Incidental.	
Seminal vesicle	Small, Bilateral, +3	Atrophy, Mild.	
Spleen	Discolored, Patchy, Tan/ Irregular	Examined; no correlation found	

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Animal: 6837H727	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 657 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 304.8	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen	Enlarged, 90-112 mm, +2/ Diffuse	M-Leukemia, mononuclear, Contributory.	
Testes	Discolored, Bilateral, Mottled, +1 Small, Right, Diffuse, +1	B-Adenoma, interstitial cell, Incidental. Atrophy, Marked.	
Lungs	Discolored, 0-2 mm, Red, +1/ Multifocus Round	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Lymph node other	Enlarged, Renal, 6-10 mm, Brown, +2/ Bilateral Multiple Oval	N-Leukemia, mononuclear, Incidental.	
Animal: 6837H728	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 348.4	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs	Discolored, 0-2 mm, Pale, Soft, +1/ Left, Multifocus	Alveolar histiocytosis, Minimal.	
Bronchial (TBLN)	Discolored, Diffuse, Red, +2	Hemorrhage, Minimal.	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Tiss.not specifi	Mass, Abdomen, 46-67 mm, Mottled, Firm/ Fat, single, Irregular	B-Lipoma, Incidental.	
Animal: 6837H729	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 355.9	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Animal: 6837H730	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 702 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 334.0	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes	Discolored, Bilateral, Diffuse, Mottled, +4 Enlarged, Right, 21-45 mm, Mottled, +4/ diffuse	B-Adenoma, interstitial cell, Incidental. B-Adenoma, interstitial cell, Incidental.	

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Animal: 6837H731	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 652 Dosing phase				Terminal body weight (g): 304.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	Enlarged, 46-67 mm, Dark Red, +2			M-Leukemia, mononuclear, Contributory.
Liver	Discolored, Diffuse, Mottled, +3			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Animal: 6837H732	Sex: Male	Status: Found Dead	Group: 4	Dose level: 20 g/m3
Day of death: 587 Dosing phase				Terminal body weight (g): 378.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Mammary gland	Discolored, Left, 11-15 mm, Black, +3/ patchy, irregular			Examined; no correlation found
Thymus	Discolored, Diffuse, Dark Red, +4			(Lungs) Autolysis, marked, Present.
Lungs	Mass, Right caudal, 21-45 mm, Mottled, Firm, +4/ oval, single			Cyst, squamous cell, Keratinizing, Present.
Adrenal glands	Discolored, Bilateral, Diffuse, Dark Red, +4			Autolysis, marked, Present.
Liver	Enlarged, Diffuse, Dark Red, +4			(Lungs) Autolysis, marked, Present.
Testes	Mass, Bilateral, 21-45 mm, Black, Soft, +4/ multiple			Congestion, Moderate.
Seminal vesicle	Small, 6-10 mm, Black, Soft, +4			B-Adenoma, interstitial cell, Incidental.
Animal: 6837H733	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 597 Dosing phase				Terminal body weight (g): 298.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver	Thick, +1			M-Leukemia, mononuclear, Contributory.
Spleen	Enlarged, 68-89 mm, +3			M-Leukemia, mononuclear, Contributory.
Testes	Small, Patchy, Mottled, +2/ Irregular			B-Adenoma, interstitial cell, Incidental.
Seminal vesicle	Small, +1			Atrophy, Mild.
Popliteal LN	Discolored, Diffuse, Grey, +2			N-Leukemia, mononuclear, Incidental.
Iliac LN	Enlarged, 6-10 mm, +3			N-Leukemia, mononuclear, Incidental.
Lymph node other	Enlarged, Renal, 6-10 mm, Grey, +2/ Diffuse			N-Leukemia, mononuclear, Incidental.

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Animal: 6837H734	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 702 Dosing phase				Terminal body weight (g): 316.5
Tissue	Gross observations / Comments	Correlated microscopic observations		
Spleen	. . . . . Enlarged, 46-67 mm, +1			M-Leukemia, mononuclear, Contributory.
Testes	. . . . . Discolored, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Liver	. . . . . Thick, +2			M-Leukemia, mononuclear, Contributory.
Adrenal glands	. . . . . Enlarged, Left, +1			B-Pheochromocytoma, benign, Incidental.
Kidneys	. . . . . Discolored, Diffuse, Mottled, +2			Nephropathy, chronic, Moderate.
Animal: 6837H735	Sex: Male	Status: Final phase sacrifice	Group: 4	Dose level: 20 g/m3
Day of death: 736 Dosing phase				Terminal body weight (g): 357.6
Tissue	Gross observations / Comments	Correlated microscopic observations		
Thyroid glands	. . . . . Mass, 6-10 mm, Dark, Firm, +2/ Diffuse, irregular			B-Adenoma, follicular cell, Incidental.
Brain	. . . . . Deformity, 3-5 mm, +2			Compression, Moderate.
Pituitary gland	. . . . . Mass, 3-5 mm, Dark, Firm, +3/ Diffuse, irregular			B-Adenoma, pars distalis, Incidental.
Testes	. . . . . Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Epididymis	. . . . . Small, Bilateral, Diffuse, +2			Atrophy, Mild.
Kidneys	. . . . . Discolored, Bilateral, Diffuse, Mottled, +2			Nephropathy, chronic, Moderate.
Animal: 6837H736	Sex: Male	Status: Final phase sacrifice	Group: 4	Dose level: 20 g/m3
Day of death: 737 Dosing phase				Terminal body weight (g): 371.5
Tissue	Gross observations / Comments	Correlated microscopic observations		
Spleen	. . . . . Mass, 11-15 mm, Pale, Firm/ Irregular			M-Fibrosarcoma, Incidental.
Testes	. . . . . Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
	Enlarged, Left, +2			B-Adenoma, interstitial cell, Incidental.
Preputial gland	. . . . . Enlarged, Left, Diffuse, Green, +2/ Yellow			Ectasia, Moderate.
Tiss.not specifi	. . . . . Nodule, 3-5 mm, Pale, Firm/ Scrotum, confluent,round			M-Mesothelioma, malignant, Incidental.
Kidneys	. . . . . Discolored, Bilateral, Diffuse, Mottled, +2			Nephropathy, chronic, Marked.

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Animal: 6837H737	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 652 Dosing phase				Terminal body weight (g): 323.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	Enlarged, 68-89 mm/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes	Small, Left, Diffuse, +2			Atrophy, Marked.
	Discolored, Right, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Animal: 6837H738	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 702 Dosing phase				Terminal body weight (g): 330.4
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen	Enlarged, 68-89 mm, Dark Red, +3			M-Leukemia, mononuclear, Contributory.
Testes	Discolored, Bilateral, Diffuse, Mottled, +2			B-Adenoma, interstitial cell, Incidental.
Animal: 6837H739	Sex: Male	Status: Final phase sacrifice	Group: 4	Dose level: 20 g/m3
Day of death: 736 Dosing phase				Terminal body weight (g): 371.6
Tissue	Gross observations / Comments			Correlated microscopic observations
Lungs	Discolored, 0-2 mm, Red/ Multifocal, Round			Examined; no correlation found
Testes	Discolored, Bilateral, Patchy, Mottled, +3/ Irregular			B-Adenoma, interstitial cell, Incidental.
Liver	Discolored, Median Lobe, 0-2 mm, Pale/ Round, 2- foci			Examined; no correlation found
Animal: 6837H740	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 640 Dosing phase				Terminal body weight (g): 315.5
Tissue	Gross observations / Comments			Correlated microscopic observations
Mandibular LN	Enlarged, 6-10 mm, Pale, Firm, +2/ Irregular			N-Leukemia, mononuclear, Incidental.
Testes	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Epididymis	Small, Bilateral, +2			Atrophy, Mild.
Spleen	Enlarged, 68-89 mm, +2			M-Leukemia, mononuclear, Contributory.
Liver	Discolored, Diffuse, Mottled, +3/ Pale			M-Leukemia, mononuclear, Contributory.
Kidneys	Discolored, Bilateral, Diffuse, Mottled, +2/ Mottled Brown			Nephropathy, chronic, Moderate.
Skin	Mass, Dorsal, 21-45 mm, Mottled, Firm, +2/ Irregular			Cyst, epithelial inclusion, Present.

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Animal: 6837H741	Sex: Male	Status: Final phase sacrifice	Group: 4	Dose level: 20 g/m3
Day of death: 737 Dosing phase				Terminal body weight (g): 361.3
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen . . . . .	Enlarged, 46-67 mm, +2/ Diffuse			M-Leukemia, mononuclear, Incidental.
Testes . . . . .	Enlarged, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Animal: 6837H742	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 597 Dosing phase				Terminal body weight (g): 307.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver . . . . .	Thick, Diffuse			M-Leukemia, mononuclear, Contributory.
Pituitary gland . . . . .	Enlarged, 3-5 mm, Dark Red, Soft, +1/ Round			Cyst, Marked.
Spleen . . . . .	Enlarged, 68-89 mm, Mottled, +2/ Diffuse			M-Leukemia, mononuclear, Contributory.
Testes . . . . .	Mass, Left, 11-15 mm, Mottled/ Irregular			B-Adenoma, interstitial cell, Incidental.
Tiss.not specifi . . . . .	Small, Right, 16-20 mm, Soft, +2			Atrophy, Marked.
Pancreatic LN . . . . .	Mass, Mesentery, 6-10 mm, Dark Red, Firm/ Round			Splenic tissue, "accessory", Present.
Animal: 6837H743	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 716 Dosing phase				Terminal body weight (g): 301.2
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Mottled, +3			M-Leukemia, mononuclear, Contributory.
Spleen . . . . .	Enlarged, 68-89 mm, +2/ Diffuse			M-Leukemia, mononuclear, Incidental.
Testes . . . . .	Discolored, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Lungs . . . . .	Discolored, Right middle, 0-2 mm, Dark, +1/ Focus, Round			N-Leukemia, mononuclear - capillary involvement, Contributory.
Animal: 6837H744	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 469 Dosing phase				Terminal body weight (g): 296.4
Tissue	Gross observations / Comments			Correlated microscopic observations
Spleen . . . . .	Enlarged, 68-89 mm			M-Leukemia, mononuclear, Contributory.

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Animal: 6837H745	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 671 Dosing phase				Terminal body weight (g): 273.9
Tissue	Gross observations / Comments			Correlated microscopic observations
Testes	. . . . . Discolored, Bilateral, Diffuse, Mottled, +4			B-Adenoma, interstitial cell, Incidental.
Animal: 6837H746	Sex: Male	Status: Sacrificed moribund	Group: 4	Dose level: 20 g/m3
Day of death: 645 Dosing phase				Terminal body weight (g): 287.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Bronchial (TBLN)	. Enlarged, 6-10 mm, +2			N-Leukemia, mononuclear, Incidental.
Spleen	. . . . . Enlarged, 68-89 mm, +2			M-Leukemia, mononuclear, Contributory.
Testes	. . . . . Discolored, Patchy, Mottled, +1/ Irregular			B-Adenoma, interstitial cell, Incidental.
Liver	. . . . . Thick, +1			M-Leukemia, mononuclear, Contributory.
Adrenal glands	. . Enlarged, Left, 11-15 mm, +9/ Irregular			M-Pheochromocytoma, malignant, Incidental.
Pituitary gland	. . Discolored, 0-2 mm, Red/ Focus Round			Angiectasis, Mild.
Lymph node other	. Discolored, Renal, 3-5 mm, Dark, +3/ Diffuse			Examined; no correlation found
Animal: 6837H747	Sex: Male	Status: Final phase sacrifice	Group: 4	Dose level: 20 g/m3
Day of death: 738 Dosing phase				Terminal body weight (g): 365.8
Tissue	Gross observations / Comments			Correlated microscopic observations
Liver	. . . . . Discolored, Median Lobe, 11-15 mm, Dark Red, +2/ Focus, Oval			B-Adenoma, hepatocellular, Incidental.
Spleen	. . . . . Discolored, 3-5 mm, Pale, +2/ Focus, irregular			Examined; no correlation found
Preputial gland	. . Enlarged, Left, 3-5 mm, Yellow/ Tan, round			Ectasia, Moderate.
Lungs	. . . . . Nodule, 0-2 mm, Tan/ Bilateral, Multifocal, round			Alveolar histiocytosis, Minimal.
Testes	. . . . . Enlarged, Bilateral, Diffuse, Mottled, +3			B-Adenoma, interstitial cell, Incidental.
Seminal vesicle	. . Small, Bilateral, +3			Atrophy, Mild.
Kidneys	. . . . . Cyst, Left, 6-10 mm, Opaque, Watery/ single, Round, pink			B-Adenoma, renal tubule, Incidental.

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 Rat/F344/N  
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Animal: 6837H74B	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 587 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 364.1	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Lungs . . . . .	Discolored, All Lobes, Diffuse, Mottled, +1	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen . . . . .	Enlarged, 68-89 mm, Dark Red, +4/ single	M-Leukemia, mononuclear, Contributory.	
Liver . . . . .	Enlarged, All Lobes, Single, Red, +4	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Mass, Left, Single, Red, Granular, +4/ oval	B-Adenoma, interstitial cell, Incidental.	
Seminal vesicle . . . . .	Mass, Right, Single, Tan, Granular, +4/ oval	B-Adenoma, interstitial cell, Incidental.	
	Small, 6-10 mm, Pale, +3/ irregular	Atrophy, Mild.	
Animal: 6837H749	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 328.0	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Testes . . . . .	Enlarged, Left, 21-45 mm, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
	Discolored, Bilateral, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Animal: 6837H750	Sex: Male	Group: 4	Dose level: 20 g/m3
Day of death: 687 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 305.6	
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mediastinal LN . . . . .	Enlarged, 3-5 mm, +1	N-Leukemia, mononuclear, Incidental.	
Bronchial (TBLN) . . . . .	Enlarged, 3-5 mm, +1	N-Leukemia, mononuclear, Incidental.	
Lungs . . . . .	Discolored, Diffuse, Pale, +2	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen . . . . .	Enlarged, 68-89 mm, +2	M-Leukemia, mononuclear, Contributory.	
Testes . . . . .	Discolored, Diffuse, Mottled, +4	B-Adenoma, interstitial cell, Incidental.	
Pancreatic LN . . . . .	Enlarged, 6-10 mm, +2	N-Leukemia, mononuclear, Incidental.	

M-8 Histological Comments on Tissue

Animal Number	Sex	Group/ Subgroup	Date and Data was entered	Time entered	Oper. #	Tissue	Special histological comment
6831E404	M	1/1	12-Jan-04	09:08	142	Mandibular LN	Tissue not represented on recut
6831E406	M	1/1	24-Oct-03	14:54	142	Parathyroid	One of pair not represented on slide.
			05-Mar-09	09:57	142	Nose/Turbinate 2	SCC is of oral origin.
			05-Mar-09	09:57	142	Nose/Turbinate 3	SCC is of oral origin.
			05-Mar-09	09:58	142	Nose/Turbinate 4	SCC is of oral origin.
6831E408	M	1/1	30-Oct-03	10:24	142	Bronchial (TBLN)	On slide 4.
			12-Jan-04	09:39	142	Parathyroid	One of pair not represented on slide.
			03-Feb-04	14:34	142	Mandibular LN	Not on recut 1 (R/C 1)
6831E409	M	1/1	12-Jan-04	09:47	142	Parathyroid	One of pair not represented on slide.
			23-Oct-03	11:25	142	Mammary gland	Tissue not represented on slide, missing at trim.
			05-Feb-04	09:24	142	Skin	Tissue not represented on slide, missing at trim.
6831E410	M	1/1	03-Feb-04	14:37	142	Pituitary gland	Grossly noted enlargement, nothing on recut 1, minimal hyperplasia on R/C 2.
6831E414	M	1/1	30-Oct-03	12:36	142	Nose/Turbinate 3	Fragmented specimen.
6831E415	M	1/1	24-Oct-03	16:23	142	Trachea	Very poor tinctorial properties in section. Staining fine in slide 04.
6831E417	M	1/1	24-Oct-03	16:57	142	Spleen	Focal region without congestion.
6831E418	M	1/1	03-Feb-04	14:38	142	Parathyroid	Tissue not represented on R/C 1 or 2.
			27-Oct-03	11:04	142	Preputial gland	Slide consists of necrotic debris mixed with bacteria.
6831E419	M	1/1	13-Nov-03	10:03	142	Parathyroid	One of pair not represented on slide.
			18-Feb-04	14:19	142	Testes	Both testes largely effaced by adenomas, even small one.
6831E420	M	1/1	17-Nov-03	12:47	142	Colon	Submucosal/lamina propria rarefaction interpreted as artifact of formalin injection at necropsy.
6831E423	M	1/1	30-Oct-03	14:02	142	Parathyroid	One of pair not represented on slide.
6831E424	M	1/1	23-Oct-03	12:48	142	Parathyroid	One of pair not represented on slide.
6831E425	M	1/1	03-Feb-04	14:44	142	Larynx	Incomplete specimen on original and R/C 1 and 2.

Animal Number	Sex	Group/ Subgroup	Date and Time Data was entered	Oper. #	Tissue	Special histological comment
6831E425	M	1/1	10-Feb-04 09:27	142	Pituitary gland	Fragmented lesion judged adenoma based primarily on compression in original, less so in R/C 1 and 2.
6831E426	M	1/1	03-Feb-04 14:48	142	Parathyroid	Tissue not represented on slide, R/C 1 or 2.
6831E427	M	1/1	27-Oct-03 11:56	142	Bronchial (TBLN)	Leukemia/lymphoma effacing tissues.
6831E428	M	1/1	05-Feb-04 12:31	142	Adrenal glands	Lost in processing.
6831E428	M	1/1	03-Feb-04 14:50	142	Mandibular LN	Tissue not represented on slide or recut
6831E430	M	1/1	03-Feb-04 14:53	142	Parathyroid	Tissue distortion due to thyroid mass, no parathyroids on slide or on recuts.
6831E431	M	1/1	12-Jan-04 11:31	142	Mandibular LN	Tissue not represented on slide or recut 1.
6831E434	M	1/1	23-Oct-03 17:05	142	Sciatic nerve	Focally extensive gliosis and granulomatous encephalitis with thrombosis, presumed infarct.
6831E434	M	1/1	23-Oct-03 17:05	142	Sciatic nerve	Scattered histiocyte like cells distributed through otherwise unremarkable nerve.
6831E435	M	1/1	27-Oct-03 14:02	142	Parathyroid	One of pair not represented on slide.
6831E439	M	1/1	30-Oct-03 15:37	142	Testes	Unilateral
6831E440	M	1/1	03-Feb-04 14:55	142	Spinal cord	Only 1 section available for evaluation.
6831E441	M	1/1	03-Feb-04 14:57	142	Pituitary gland	Pars distalis only on original and recut.
6831E441	M	1/1	24-Oct-03 09:24	142	Mediastinal LN	No tissue found at embedding.
6831E442	M	1/1	27-Oct-03 17:00	142	Parathyroid	One of pair not represented on slide.
6831E443	M	1/1	27-Oct-03 17:24	142	Colon	Rarefaction of l.p. and submucosa interpreted as artifact of formalin injection.
6831E447	M	1/1	24-Oct-03 10:53	142	Parathyroid	One of pair not represented on slide.
6831E448	M	1/1	28-Oct-03 09:00	142	Pituitary gland	Focal hemorrhage interpreted as artifact.
6831E449	M	1/1	28-Oct-03 09:02	142	Parathyroid	One of pair not represented on slide.
6831E450	M	1/1	10-Feb-04 10:21	142	Pituitary gland	Tissue not represented on slide, lymphoid tissue only present.
6833F506	M	2/1	05-Feb-04 12:36	142	Parathyroid	One of pair not represented on slide.
6833F507	M	2/1	31-Dec-03 10:56	142	Parathyroid	One of pair not represented on slide.
6833F509	M	2/1	13-Jan-04 07:49	142	Thyroid glands	Missing at trim

Animal Number	Sex	Group/ Subgroup	Date and Data was entered	Time entered	Oper. #	Tissue	Special histological comment
6833F509	M	2/1	05-Feb-04	12:38	142	Parathyroid	Missing at trim
			05-Feb-04	12:38	142	Esophagus	Missing at trim
			13-Jan-04	07:49	142	Larynx	Missing at trim
6833F510	M	2/1	03-Feb-04	15:01	142	Mammary gland	Tissue not represented on slide or recut.
			31-Dec-03	11:07	142	Parathyroid	One of pair not represented on slide.
			05-Mar-09	09:59	142	Nose/Turbinates 4	SCC of oral origin
6833F512	M	2/1	13-Jan-04	09:02	142	Eyes/optic nerve	One eye presumed missing at trim
6833F515	M	2/1	13-Jan-04	09:57	142	Iliac LN	Not recorded as trimmed. Gross enlargement presumed due to leukemia/lymphoma.
6833F517	M	2/1	05-Jan-04	09:40	142	Urinary bladder	Bladder missing at trim.
			05-Jan-04	09:43	142	Prostate	Missing at trim.
			05-Jan-04	09:44	142	Seminal vesicle	Missing at trim.
6833F524	M	2/1	03-Feb-04	15:06	142	Bronchial (TBLN)	Tissue not represented on slide or recut
6833F528	M	2/1	04-Feb-04	12:16	142	Mammary gland	Tissue not represented on slide or recut
6833F531	M	2/1	08-Jan-04	08:58	142	Parathyroid	One of pair not represented on slide.
6833F537	M	2/1	03-Feb-04	15:14	142	Mammary gland	Tissue not represented on slide or recut
6833F539	M	2/1	05-Mar-09	10:01	142	Nose/Turbinates 3	SCC of oral origin.
			05-Mar-09	10:00	142	Nose/Turbinates 4	SCC oral origin.
6833F540	M	2/1	04-Feb-04	11:06	142	Mediastinal LN	Tissue not represented on slide or recut
			05-Feb-04	12:31	142	Mammary gland	Missing at trim.
6833F541	M	2/1	13-Jan-04	12:15	142	Mediastinal LN	Tissue trimmed as mediastinal node is pancreas.
			06-Jan-04	13:09	142	Lungs	Prominent deposition of birefringent pigment interpreted as acid hematin, often within macrophages.
			04-Feb-04	11:08	142	Mandibular LN	Tissue not represented on slide or recut
			04-Feb-04	11:07	142	Mediastinal LN	Tissue not represented on slide or recut
6833F542	M	2/1	19-Jan-04	13:11	142	Trachea	Extensive artifactual epithelial loss.

Animal Number	Sex	Group/ Subgroup	Date and Time Data was entered	Oper. #	Tissue	Special histological comment
6833F543	M	2/1	06-Jan-04 15:36	142	Parathyroid	One of pair not represented on slide.
6833F545	M	2/1	13-Jan-04 12:38	142	Pituitary gland	Fragmented
6833F550	M	2/1	19-Jan-04 13:33	142	Parathyroid	Distortion due to bilateral thyroid C-cell adenomas.
6835G612	M	3/1	08-Jan-04 11:01	142	Parathyroid	Tissue not represented on slide.
6835G619	M	3/1	08-Jan-04 11:29	142	Parathyroid	One of pair missing
6835G620	M	3/1	08-Jan-04 11:45	142	Parathyroid	One of pair not represented on slide.
6835G622	M	3/1	14-Jan-04 08:18	142	Urinary bladder	Missing at trim
			14-Jan-04 08:21	142	Prostate	Missing at trim
			13-Feb-04 08:43	142	Seminal vesicle	Missing at trim, small size described grossly presumed due to atrophy.
6835G623	M	3/1	04-Feb-04 11:20	142	Trachea	Lost in processing, evaluated on slide 4.
6835G629	M	3/1	04-Feb-04 11:21	142	Mediastinal LN	Tissue not represented on slide or recut
6835G635	M	3/1	04-Feb-04 11:24	142	Bronchial (TBLN)	Tissue not represented on slide or recut
			04-Feb-04 11:26	142	Mammary gland	Tissue not represented on slide or recut
6835G637	M	3/1	04-Feb-04 11:29	142	Mammary gland	Tissue not represented on slide or recut
6835G641	M	3/1	04-Feb-04 11:31	142	Lungs	Grossly described nodule not present on slide or recut
6835G642	M	3/1	09-Jan-04 10:39	142	Parathyroid	One of pair not represented on slide.
6835G643	M	3/1	04-Feb-04 11:34	142	Bronchial (TBLN)	Tissue not represented on slide or recut
6837H703	M	4/1	07-Jan-04 12:18	142	Tiss. not specifi	Malignant mesothelioma widespread on mesothelial surfaces
6837H705	M	4/1	29-Oct-03 10:55	142	Spinal cord	Focus of hematopoietic cells interpreted as artifact (from bone marrow).
6837H708	M	4/1	29-Oct-03 11:29	142	Parathyroid	One of pair not represented on slide.
6837H710	M	4/1	20-Nov-03 10:18	142	Parathyroid	Thyroid mass interferes, no recut.
6837H713	M	4/1	29-Oct-03 12:00	142	Testes	Unilateral
6837H714	M	4/1	29-Oct-03 16:03	142	Pituitary gland	Hemorrhage within cystic spaces in proliferative area.
6837H715	M	4/1	20-Nov-03 15:13	142	Pituitary gland	Slide 22 fragment of pituitary, slide 23 good section.

Animal Number	Sex	Group/ Subgroup	Date and Time Data was entered	Oper. #	Tissue	Special histological comment
6837H716	M	4/1	04-Feb-04 11:40	142	Mandibular LN	Tissue not represented on slide or recut
6837H717	M	4/1	29-Oct-03 16:32	142	Parathyroid	One of pair not represented on slide.
6837H718	M	4/1	29-Oct-03 17:12	142	Parathyroid	One of pair not represented on slide.
			29-Oct-03 17:24	142	Jejunum	No recut based on autolysis in other GI sections.
			29-Oct-03 17:31	142	Testes	Unilateral
6837H719	M	4/1	04-Feb-04 11:42	142	Mammary gland	Tissue not represented on slide or recut
6837H720	M	4/1	04-Feb-04 11:44	142	Parathyroid	Tissue not represented on slide recut. Distorted by thyroid mass.
			21-Nov-03 09:59	142	Eyes/optic nerve	One eye missing at trim
6837H722	M	4/1	30-Oct-03 16:12	142	Parathyroid	One of pair not represented on slide.
6837H724	M	4/1	30-Oct-03 16:33	142	Parathyroid	One of pair not represented on slide.
6837H729	M	4/1	04-Feb-04 12:00	142	Parathyroid	Tissue not represented on slide or recut 1, small amount on recut 2.
			12-Jan-04 12:56	142	Spinal cord	Scattered spheroid-like bodies.
6837H730	M	4/1	05-Mar-09 10:02	142	Nose/Turbinates 3	Carcinoma is likely of oral origin.
			05-Mar-09 10:02	142	Nose/Turbinates 4	Carcinoma likely of oral origin.
6837H732	M	4/1	04-Feb-04 12:03	142	Mandibular LN	Tissue not represented on slide or recut
			20-Feb-04 10:02	142	Thymus	Gross findings correlated to autolysis (widespread autolysis noted in lungs only due to software constraints).
6837H735	M	4/1	07-Nov-03 12:16	142	Thyroid glands	Follicular carcinoma arising within follicular adenoma.
			12-Jan-04 12:58	142	Parathyroid	Parathyroids not present on slide, distortion due to thyroid lesion.
			07-Nov-03 14:25	142	Mammary gland	Mammary tissue on slide 6
6837H745	M	4/1	04-Feb-04 12:15	142	Mammary gland	Tissue not represented on slide or recut
			05-Mar-09 10:03	142	Nose/Turbinates 4	SCC likely of oral origin.
6837H748	M	4/1	07-Jan-04 14:08	142	Parathyroid	One of pair not represented on slide.
6837H749	M	4/1	11-Nov-03 15:10	142	Lungs	Multifocal granulomatous inflammation often associated with foreign material (interpreted as plant material).

M-9 Summary of Missing Tissues

Summary Table of Missing Tissues  
Study number: FY01013M

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Tissue	Animals
Trachea	6833F536
Bronchial (TBLN)	6831E450 6833F504 6833F524 6835G635 6835G643 6837H703 6837H704 6837H736
Thyroid glands	6831E412* 6831E428* 6831E432* 6831E437* 6833F509 6833F537* 6837H709*
Parathyroid	6831E404* 6831E406* 6831E408* 6831E409* 6831E412* 6831E413* 6831E418 6831E423* 6831E424* 6831E426 6831E427*
Parathyroid	6831E428* 6831E430 6831E432* 6831E433* 6831E435* 6831E437* 6831E441* 6831E442* 6831E443 6831E447* 6831E448
Parathyroid	6831E449* 6833F506* 6833F507* 6833F509 6833F510* 6833F512* 6833F514* 6833F515* 6833F518* 6833F528* 6833F531*
Parathyroid	6833F533* 6833F534* 6833F537* 6833F538* 6833F541* 6833F543* 6833F550 6835G612* 6835G619* 6835G620*
Parathyroid	6835G622* 6835G623* 6835G626* 6835G632* 6835G640* 6835G642* 6835G644* 6837H706 6837H708* 6837H710
Parathyroid	6837H717* 6837H718* 6837H720 6837H722* 6837H723* 6837H724* 6837H729* 6837H731* 6837H735 6837H736* 6837H742*
Parathyroid	6837H748*
Esophagus	6833F509
Larynx	6833F509
Mandibular LN	6831E404 6831E408 6831E417 6831E421 6831E425 6831E428 6831E431 6831E432 6831E439 6831E445 6833F507*
Mandibular LN	6833F520 6833F541 6837H716 6837H732
Urinary bladder	6833F517 6835G622
Jejunum	6837H718
Adrenal glands	6831E427
Prostate	6833F517 6835G622
Seminal vesicle	6833F517 6835G622
Mammary gland	6831E401 6831E402 6831E407 6831E409 6831E410 6831E412 6831E413 6831E424 6831E429 6831E430
Mammary gland	6831E432 6831E437 6831E449 6833F509 6833F528 6833F537* 6833F540 6835G635 6837H713 6837H719
Mammary gland	6837H745
Skin	6831E409
Eyes/optic nerve	6833F512* 6837H720*
Iliac LN	6833F515
Mediastinal LN	6831E441 6833F539 6833F540 6833F541 6833F546 6835G629
Pituitary gland	6831E450

\* Only one of the pair is missing

M-10 Lesion Incidence Summary with K-S (comparison > control)

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Lesion incidence summary with K-S (comparison > control)  
 Study Number:FY01013M  
 Printed: 30-Jun-04  
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Controls from group(s): 1		-- Animals		Affected --	
T i s u e s	W i t h	D i a g n o s e s	C t l s	M a l e s	
Kidneys	.....	.....	50	50	50
Cyst			0	1	2
Degeneration, hyaline droplet			0	1	0
Infarct			0	0	0
Nephropathy, chronic			44	47	-50
Pigment accumulation, tubular epithelium			3	3	1
Inflammation, acute			0	1	2

Note: Entries flagged with a - (minus) are significantly higher than control at the 0.05 level using the Kolmogorov-Smirnov one-tailed test.

All Graded Diagnoses; Phases: All; Death types: All; Date of death range: 17-Dec-01 To 30-May-03

APPENDIX N

NEOPLASTIC AND NON-NEOPLASTIC LESIONS AND  
GROSS NECROPYS OBSERVATIONS IN FEMALE RATS

- N-1 Gross Necropsy Observations
- N-2 Lesion Incidence by Animal Number for Microscopic Observations
- N-3 Incidence Summary (with percentages) of Microscopic Observations
- N-4 Tabulated Incidence Summary of Non-neoplastic Lesions
- N-5 Lesion Incidence Summary with Average Severity Grades
- N-6 Raw Data
- N-7 Individual Animal Report of Correlated Gross and Microscopic Diagnoses
- N-8 Histological Comments on Tissue
- N-9 Summary of Missing Tissues
- N-10 Lesion Incidence Summary with K-S (comparison > control)

N-1 Gross Necropsy Observations

Lovelace Respiratory Research Institute  
 Incidence Summary Report for Gross Necropsy Observations by Animal  
 Study number: FY01013F  
 All Sacrifices  
 Study start date: 30-May-01  
 Rat/F344/N  
 Inhalation/whole-bdy/Chronic  
 Printed: 22-Aug-08  
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	Group:				Females			
	Number in group:							
	1	2	3	4	50	50	50	50
----- Adrenal glands -----								
Discolored .....	1	2	0	1				
Enlarged .....	0	1	1	0				
Mass .....	0	0	1	0				
----- Brain -----								
Deformity .....	2	8	9	8				
Discolored .....	1	2	1	0				
----- Duodenum -----								
Discolored .....	0	0	1	0				
----- Esophagus -----								
Discolored .....	0	0	1	0				
----- Eyes/optic nerve -----								
Crust .....	3	0	3	3				
Small .....	0	0	1	1				
Discolored .....	1	3	1	5				
----- Ileum -----								
Discolored .....	0	0	1	1				
----- Jejunum -----								
Discolored .....	0	0	1	0				
----- Kidneys -----								
Cyst .....	2	0	0	3				
Discolored .....	1	1	1	1				
----- Liver -----								
Deformity .....	1	0	0	0				
Enlarged .....	0	0	0	1				
Hernia .....	0	5	0	3				
Mass .....	2	1	0	1				
Nodule .....	1	0	2	0				
Small .....	1	0	0	0				
Thick .....	0	2	1	2				
Discolored .....	18	14	8	9				
----- Pancreas -----								
Small .....	0	0	0	1				

Lovelace Respiratory Research Institute  
 Incidence Summary Report for Gross Necropsy Observations by Animal  
 Study number: FY01013F  
 All Sacrifices  
 Rat/F344/N  
 Study start date: 30-May-01  
 Inhalation/whole-bdy/Chronic  
 Printed: 22-Aug-08  
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	Group:				Females			
	1	2	3	4	1	2	3	4
-----								
	Number in group:							
	50	50	50	50	50	50	50	50
-----								
Pituitary gland								
Cyst	1	1	0	1	1	0	0	1
Enlarged	4	3	6	4	4	0	0	1
Focus	0	0	0	1	0	0	0	1
Mass	1	5	4	4	1	5	4	4
Nodule	1	2	0	1	1	2	0	1
Discolored	18	7	15	4	18	7	15	4
Salivary gland								
Discolored	0	1	0	0	0	1	0	0
Skin								
Crust	0	0	1	0	0	0	1	0
Mass	0	2	0	0	0	2	0	0
Spleen								
Adhesion	1	0	0	0	1	0	0	0
Discolored	3	2	1	2	3	2	1	2
Enlarged	23	11	11	19	23	11	11	19
Mass	1	1	0	0	1	1	0	0
Nodule	1	1	0	0	1	1	0	0
Small	1	1	1	0	1	1	1	0
Stomach								
Mass	0	0	0	1	0	0	0	1
Thyroid glands								
Cyst	1	0	0	0	1	0	0	0
Enlarged	2	1	2	3	2	1	2	3
Mass	0	0	1	0	0	0	1	0
Nodule	0	1	0	0	0	1	0	0
Discolored	0	0	0	1	0	0	0	1
Urinary bladder								
Fluid	1	0	0	0	1	0	0	0
Discolored	1	0	0	0	1	0	0	0
Lungs								
Discolored	15	5	8	14	15	5	8	14
Mass	0	0	0	1	0	0	0	1
Nodule	2	1	2	1	2	1	2	1
Tail								
Amputation	0	1	0	0	0	1	0	0

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	Females			
	1	2	3	4
Number in group:	50	50	50	50
Tail				
Crust	0	0	1	1
Bronchial (TBLN)				
Enlarged	6	1	3	1
Discolored	1	1	0	0
Mandibular LN				
Enlarged	4	3	3	2
Mediastinal LN				
Enlarged	8	3	4	4
Discolored	1	0	0	1
Mesenteric LN				
Enlarged	7	1	1	1
Discolored	1	0	0	0
Uterus				
Cyst	1	0	1	0
Dilatation	0	1	1	1
Enlarged	2	3	2	2
Focus	0	0	0	1
Intussusception	0	0	0	1
Mass	2	8	9	8
Nodule	1	1	1	0
Prolapse	2	1	0	0
Thick	0	0	1	0
Discolored	1	3	3	2
Ovaries				
Cyst	1	0	2	1
Enlarged	0	2	0	1
Mass	0	1	0	0
Small	0	0	0	2
Discolored	1	0	2	1
Mammary gland				
Mass	2	5	3	5
Discolored	0	0	1	0
Cervix				
Enlarged	1	5	3	2

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	Females			
	1	2	3	4
Number in group:	50	50	50	50
Cervix				
Mass	1	0	0	1
Thick	1	1	0	0
Mesentery				
Nodule	1	0	0	0
Mediastinum				
Mass	1	0	0	0
Lymph node other				
Enlarged	5	2	4	2
Bone, vertebrae				
Mass	1	0	0	0
Pancreatic LN				
Enlarged	2	2	2	1
Iliac LN				
Enlarged	2	2	2	0
Discolored	0	0	1	0
Zymbal's gland				
Mass	1	0	0	0
Clitoral gland				
Mass	1	1	3	0
Popliteal LN				
Enlarged	1	1	0	0
Vagina				
Mass	0	1	0	0
Harderian gland				
Discolored	0	0	1	0
Tiss.not specifi				
Mass	0	0	1	0
Malocclusion	0	0	1	0
Bone, other				
Deformity	0	0	1	0



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Controls from group(s): 1	--- F e m a l e s ---			
	Number in group:	2	3	4
		50	50	50
Adrenal glands Discolored	6832E487	6834F552 6834F599 6834F576	6836G668 6836G693	6838H786
- Enlarged Mass				
Brain Deformity	6832E473 6832E488	6834F563 6834F564 6834F565 6834F569 6834F576 6834F579 6834F584 6834F593	6836G654 6836G655 6836G665 6836G666 6836G669 6836G679 6836G687 6836G692 6836G695 6836G695	6838H754 6838H762 6838H769 6838H783 6838H787 6838H790 6838H799 6838H800
- Discolored	6832E474	6834F564 6834F584		
Duodenum Discolored			6836G671	
Esophagus Discolored			6836G653	
Eyes/optic nerve Crust	6832E468 6832E478 6832E489		6836G654 6836G655 6836G689 6836G666 6836G699	6838H755 6838H762 6838H776 6838H782 6838H777 6838H785 6838H786 6838H798
- Small Discolored	6832E476	6834F555 6834F572 6834F585		
- Discolored				
- Discolored				
Ileum Discolored			6836G671	6838H772
Jejunum Discolored			6836G671	

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Controls from group(s): 1	--- F e m a l e s ---			
	Number in group:	2 50	3 50	4 50
Kidneys				
- Cyst	6832E472 6832E472			6838H755 6838H757 6838H762 6838H787
- Discolored	6832E474	6834F599	6836G660	
Liver				
- Deformity	6832E468			6838H785 6838H756 6838H771 6838H786
- Enlarged		6834F566 6834F575 6834F577 6834F578 6834F596 6834F584		
- Hernia				
- Mass	6832E484 6832E497 6832E453		6836G653 6836G660	6838H751
- Nodule				
- Small	6832E464			
- Thick				
- Discolored		6834F576 6834F584 6834F551 6834F552 6834F553 6834F556 6834F558 6834F562 6834F566 6834F571 6834F579 6834F581 6834F589 6834F589 6834F591 6834F591	6836G682 6836G655 6836G659 6836G660 6836G676 6836G680 6836G685 6836G687	6838H768 6838H800 6838H758 6838H762 6838H763 6838H772 6838H775 6838H783 6838H787 6838H791 6838H797
- Discolored	6832E452 6832E454 6832E457 6832E462 6832E464 6832E469 6832E470 6832E474 6832E476 6832E477 6832E480 6832E485 6832E490 6832E491 6832E493 6832E496 6832E499 6832E500			
Pancreas				
- Small				6838H785

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 Inhalati on/whole-bdy/Chronic

Controls from group(s): 1	--- F e m a l e s ---			
	2	3	4	50
Number in group:	50	50	50	50
Pituitary gland				
Cyst	6834F563	6836G654	6838H759	
Enlarged	6834F577	6836G655	6838H762	
-	6834F474	6836G669	6838H769	
-	6834F593	6836G678	6838H790	
-		6836G692	6838H799	
-		6836G695		
Focus	6834F564	6836G665	6838H757	
Mass	6834F565	6836G666	6838H754	
-	6834F569	6836G679	6838H783	
-	6834F576	6836G687	6838H787	
-	6834F584		6838H800	
Nodule	6834F561		6838H779	
-	6834F594			
Discolored	6834F558	6836G652	6838H768	
-	6834F573	6836G653	6838H770	
-	6834F580	6836G657	6838H788	
-	6834F582	6836G663		
-	6834F585	6836G664		
-	6834F596	6836G672		
-	6834F600	6836G675		
-		6836G676		
-		6836G680		
-		6836G681		
-		6836G683		
-		6836G684		
-		6836G685		
-		6836G689		
-		6836G694		
Salivary gland				
Discolored	6834F562			
Skin				
Crust		6836G666		
Mass	6834F551			
-	6834F576			

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 Inhalation/whole-body/Chronic

Controls from group(s): 1	--- F e m a l e s ---			
	Number in group:	2 50	3 50	4 50
Spleen				
Adhesion	6832E466	6834F572	6836G660	6838H772
Discolored	6832E456	6834F576		6838H778
-	6832E479			
-	6832E490			
Enlarged	6832E453	6834F552	6836G659	6838H751
-	6832E454	6834F556	6836G660	6838H752
-	6832E456	6834F567	6836G675	6838H757
-	6832E457	6834F568	6836G676	6838H761
-	6832E459	6834F571	6836G680	6838H764
-	6832E463	6834F572	6836G682	6838H766
-	6832E464	6834F576	6836G685	6838H767
-	6832E466	6834F579	6836G686	6838H770
-	6832E469	6834F581	6836G687	6838H774
-	6832E470	6834F589	6836G688	6838H775
-	6832E471	6834F599	6836G698	6838H778
-	6832E474			6838H780
-	6832E476			6838H785
-	6832E477			6838H787
-	6832E479			6838H791
-	6832E482			6838H792
-	6832E484			6838H793
-	6832E485			6838H797
-	6832E487			6838H800
-	6832E491			
-	6832E493			
-	6832E496			
-	6832E499			
-	6832E470			
Mass Nodule Small	6832E453	6834F568	6836G700	
-	6832E482	6834F577		
-	6832E483	6834F575		
Stomach Mass				6838H753
Thyroid glands				
Cyst	6832E479			
Enlarged	6832E462	6834F570	6836G686	6838H753
-	6832E482		6836G694	6838H786
-			6836G653	6838H791
-				

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+ Controls from group(s): 1		All Sacrifices		Inhalation/whole-body/Chronic	
Study start date: 30-May-01		Study start date: 30-May-01		Study start date: 30-May-01	
Number in group:		Females		Inhalation/whole-body/Chronic	
Group:		2		3	
50		50		50	
50		50		50	
Thyroid glands					
Nodule					
Discolored		6834F557			6838H776
Urinary bladder					
Fluid					
Discolored	6832E468				
	6832E491				
Lungs					
Discolored	6832E459	6834F566	6836G660	6838H751	
-	6832E466	6834F568	6836G665	6838H753	
-	6832E469	6834F576	6836G667	6838H756	
-	6832E470	6834F586	6836G673	6838H766	
-	6832E470	6834F599	6836G676	6838H771	
-	6832E471		6836G677	6838H772	
-	6832E473		6836G682	6838H774	
-	6832E474		6836G693	6838H776	
-	6832E476			6838H785	
-	6832E477			6838H785	
-	6832E480			6838H786	
-	6832E482			6838H791	
-	6832E485			6838H795	
-	6832E491			6838H797	
-	6832E494				
Mass		6834F592	6836G686	6838H753	
Nodule	6832E453		6836G692	6838H753	
-	6832E490				
Tail					
Amputation		6834F559	6836G689	6838H759	
Crust					
Bronchial (TBLN)					
Enlarged	6832E453	6834F568	6836G682	6838H752	
-	6832E459		6836G686		
-	6832E470		6836G698		
-	6832E485				
-	6832E493				
-	6832E496	6834F562			
-	6832E473				
Mandibular LN					
Enlarged	6832E459	6834F568	6836G666	6838H752	
-	6832E487	6834F569	6836G672	6838H761	

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+ Controls from group(s): 1		All Sacrifices		Inhalation/whole-body/Chronic	
Study start date: 30-May-01		Study start date: 30-May-01		Study start date: 30-May-01	
	Number in group:	2	3	4	5
	Group:	50	50	50	50
	CtIs	50	50	50	50
--- F e m a l e s ---					
Mandibular LN					
- Enlarged	6832E491	6834F596	6836G682		
-	6832E496				
Mediastinal LN					
- Enlarged	6832E453	6834F568	6836G660	6838H752	
-	6832E459	6834F572	6836G682	6838H753	
-	6832E466	6834F577	6836G688	6838H770	
-	6832E487		6836G698	6838H778	
-	6832E490				
-	6832E491				
-	6832E493				
-	6832E496				
-	6832E473				
- Discolored				6838H792	
Mesenteric LN					
- Enlarged	6832E453	6834F568	6836G682	6838H752	
-	6832E459				
-	6832E485				
-	6832E487				
-	6832E491				
-	6832E493				
-	6832E496				
-	6832E485				
- Discolored					
Uterus					
- Cyst	6832E495		6836G674	6838H757	
- Dilatation		6834F595	6836G683	6838H769	
- Enlarged	6832E456	6834F557	6836G673	6838H752	
-	6832E485	6834F562	6836G676	6838H753	
-		6834F589		6838H767	
-				6838H770	
- Focus				6838H772	
- Intussusception				6838H780	
- Mass	6832E453	6834F556	6836G651	6838H786	
-	6832E460	6834F561	6836G661	6838H791	
-		6834F562	6836G666		
-		6834F563	6836G667		
-		6834F566	6836G670		
-		6834F573	6836G671		
-		6834F576	6836G683		
-		6834F582	6836G690		
-			6836G700		

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Controls from group(s): 1	--- F e m a l e s ---			
	Number in group:	2 50	3 50	4 50
Uterus				
Nodule		6834F594	6836G659	
ProLapse		6834F590		
-				
Thick		6834F552	6836G669	6838H770
Discolored		6834F562	6836G660	6838H795
-		6834F565	6836G669	
-				
Ovaries				
Cyst		6832E495	6836G661	6838H759
-			6836G675	6838H752
Enlarged		6834F562		
-		6834F568		
Mass		6834F596		
Small				
-				
Discolored			6836G657	6838H770
-			6836G665	6838H772
-				6838H795
Mammary gland				
Mass		6834F563	6836G672	6838H756
-		6834F565	6836G687	6838H761
-		6834F565	6836G697	6838H773
-		6834F567		6838H782
-		6834F571	6836G679	6838H798
-				
Discolored				
Cervix				
Enlarged		6834F569	6836G657	6838H771
-		6834F570	6836G668	6838H799
-		6834F574	6836G673	
-		6834F575		
-		6834F576		
-		6834F595		6838H769
-				
Lymph node other				
Enlarged		6834F568	6836G653	6838H752
-		6834F568	6836G680	6838H752
-			6836G682	
-			6836G682	

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+ Controls from group(s): 1		All Sacrifices		Inhalation/whole-body/Chronic	
Study start date: 30-May-01		Study start date: 30-May-01		Study start date: 30-May-01	
Number in group:		Females		Inhalation/whole-body/Chronic	
Group:		2		3	
Number in group:		50		50	
Number in group:		50		50	
Mesentery Nodule	6832E477				
Mediastinum Mass	6832E490				
Bone, vertebrae Mass	6832E491				
Pancreatic LN Enlarged	6832E491	6834F572	6836G682		6838H752
-	6832E496	6834F577	6836G688		
Iliac LN Enlarged	6832E491	6834F568	6836G682		
- Discolored	6832E496	6834F577	6836G688		
Zymbal's gland Mass	6832E492				
Clitoral gland Mass	6832E494	6834F594	6836G669		
-			6836G678		
-			6836G687		
Popliteal LN Enlarged	6832E496	6834F568			
Vagina Mass		6834F561			
Harderian gland Discolored			6836G683		
Tissue, not specific Mass					
Malocclusion			6836G684		
			6836G699		
Bone, other Deformity			6836G688		



N-2 Lesion Incidence by Animal Number for Microscopic Observations

Proliferative (including Neoplastic) Lesions



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Controls from group(s): 1		Animal sex:		A f f e c t e d --	
T i s s u e	W i t h D i a g n o s e s	D o s a g e g r o u p:	N o. i n g r o u p:	-- F e m a l e s --	
Trachea	.....	No. in group:	.....		
Hyperplasia	.....	Number examined:	.....		
N-Leukemia, mononuclear		6834F577	6836G682		
Bronchial (TBLN)	.....	19	20		48
N-Leukemia, mononuclear		6834F568	6836G676		6838H752
		6834F571	6836G678		6838H785
		6834F599	6836G682		
		6832E476	6836G686		
		6832E485	6836G687		
		6832E490	6836G688		
		6832E491	6836G698		
		6832E493			
		6832E496			
Thyroid glands	.....	22	22		50
Hyperplasia, C-cell, focal		6834F570	6836G685		6838H761
		6834F572			6838H767
		6834F589			6838H773
		6834F594			6838H776
					6838H781
					6838H788
Hyperplasia, follicular cell		6832E479			
B-Adenoma, C-cell		6834F557	6836G659		6838H759
		6834F570	6836G686		6838H791
			6836G694		
B-Adenoma, follicular cell					6838H770
					6838H791
M-Carcinoma, C-cell		6832E462			
M-Carcinoma, follicular cell		6832E454	6836G653		
M-Leukemia, mononuclear					6838H770

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

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Controls from group(s): 1		Animal sex:		Affected	
T i s s u e s	W i t h	D i a g n o s e s	--- F e m a l e s ---	C t l s	
Parathyroid	.....	.....	.....	50	3
Hyperplasia, focal	.....	.....	.....	50	50
				47	20
				6832E497	20
B-Adenoma				6832E494	
Aorta	.....	.....	.....	49	20
N-Leukemia, mononuclear - invasive involvement	.....	.....	.....	6832E490	20
Esophagus	.....	.....	.....	50	20
Larynx	.....	.....	.....	50	50
Hyperplasia	.....	.....	.....	6832E451	6836G655
				6832E452	6838H752
				6832E453	6838H754
				6832E455	6838H763
				6832E457	6838H765
				6832E462	6838H768
				6832E464	6838H770
				6832E470	6838H771
				6832E471	6838H772
				6832E473	6838H775
				6832E476	6838H776
				6832E479	6838H791
				6832E480	6838H792
				6832E482	6838H796
				6832E488	6838H797
				6832E489	6838H800
				6832E500	
Salivary gland	.....	.....	.....	50	20
M-Leukemia, mononuclear	.....	.....	.....	6832E484	6838H764
				6832E485	
Mandibular LN	.....	.....	.....	44	19
N-Leukemia, mononuclear	.....	.....	.....	6832E459	6836G659
				6832E464	6838H752
				6832E470	6838H761
				6832E471	6838H770
				6832E476	6838H772
				6832E477	6836G688
				6832E484	
				6832E487	

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

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Controls from group(s): 1  
 Animal sex: -- F e m a l e s --  
 Dosage group: 2 3 4  
 No. in group: 50 50 50  
 Number examined: 44 19 21  
 6832E490  
 6832E491  
 6832E493  
 6832E496

Liver .....Number examined:  
 Hyperplasia, biliary  
 50 28 22 50  
 6832E451 6834F551 6836G653 6838H754  
 6832E453 6834F553 6836G655 6838H755  
 6832E454 6834F556 6836G659 6838H756  
 6832E455 6834F565 6836G664 6838H757  
 6832E456 6834F566 6836G665 6838H759  
 6832E458 6834F571 6836G676 6838H760  
 6832E460 6834F576 6836G678 6838H762  
 6832E463 6834F578 6836G679 6838H765  
 6832E466 6834F579 6836G680 6838H768  
 6832E467 6834F581 6836G682 6838H770  
 6832E468 6834F582 6836G683 6838H771  
 6832E470 6834F589 6836G685 6838H774  
 6832E471 6834F593 6836G687 6838H775  
 6832E472 6834F594 6836G688 6838H776  
 6832E475 6834F595 6836G693 6838H779  
 6832E476 6834F599 6836G695 6838H782  
 6832E478 6834F599 6836G698 6838H783  
 6832E479 6838H787  
 6832E480 6838H788  
 6832E483 6838H790  
 6832E484 6838H792  
 6832E485 6838H793  
 6832E486 6838H796  
 6832E487 6838H800  
 6832E488  
 6832E489  
 6832E490  
 6832E491  
 6832E492  
 6832E493  
 6832E494  
 6832E496  
 6832E498  
 6832E499  
 6832E500

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

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Controls from group(s): 1		Animal sex:		A f f e c t e d --	
T i s s u e s	W i t h	D i a g n o s e s	D o s a g e	g r o u p	-- F e m a l e s --
			No. in group:		
Liver .....			Number examined:		
Hyperplasia, hepatocellular, regenerative			50	28	22
			6832E484	6834F584	6836G659
			6832E497		6838H772
B-Adenoma, hepatocellular					
M-Sarcoma. histiocytic					
M-Leukemia, mononuclear					
			6832E452	6834F551	6836G655
			6832E453	6834F552	6838H752
			6832E454	6834F553	6838H753
			6832E456	6834F556	6838H757
			6832E457	6834F567	6838H759
			6832E459	6834F568	6838H760
			6832E462	6834F571	6838H761
			6832E463	6834F572	6838H764
			6832E464	6834F576	6838H766
			6832E466	6834F577	6838H767
			6832E468	6834F579	6838H768
			6832E469	6834F581	6838H770
			6832E470	6834F584	6838H772
			6832E471	6834F589	6838H774
			6832E474	6834F591	6838H775
			6832E476	6834F596	6838H778
			6832E477	6834F599	6838H780
			6832E479		6838H785
			6832E482		6838H787
			6832E485		6838H791
			6832E487		6838H792
			6832E490		6838H793
			6832E491		6838H797
			6832E493		6838H800
			6832E496		
			6832E497		
			6832E499		
Spleen .....			50	22	24
M-Leukemia, mononuclear			6832E453	6834F552	6836G659
			6832E454	6834F556	6838H752
			6832E456	6834F567	6838H753
			6832E457	6834F568	6838H757
			6832E459	6834F571	6838H759
			6832E462	6834F572	6838H760
			6832E463	6834F576	6838H761
			6832E464	6834F577	6838H764
			6832E466	6834F579	6838H766

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

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Controls from group(s): 1		Animal sex:		A f f e c t e d --		
T i s s u e s	W i t h	D i a g n o s e s	No. in group:	-- F e m a l e s --		
			Ctl's	2	3	
			50	50	50	
			50	22	24	
Spleen .....			6832E468	6834F581	6836G688	6838H768
			6832E469	6834F589	6836G698	6838H770
			6832E470	6834F599		6838H772
			6832E471			6838H774
			6832E474			6838H775
			6832E476			6838H778
			6832E477			6838H780
			6832E479			6838H785
			6832E482			6838H787
			6832E484			6838H791
			6832E485			6838H792
			6832E487			6838H793
			6832E490			6838H797
			6832E491			6838H800
			6832E493			
			6832E496			
			6832E497			
			6832E499			
N-Sarcoma, histiocytic					6836G660	
Kidneys .....			50	20	21	50
M-Leukemia, mononuclear			6832E491	6834F568	6836G682	6838H752
						6838H766
N-Sarcoma, histiocytic					6836G660	
Heart .....			50	20	20	50
M-Leukemia, mononuclear			6832E453	6834F568		6838H752
			6832E459	6834F577		6838H764
			6832E484			
			6832E490			
			6832E496			
Stomach .....			50	20	20	50
M-Carcinoma, metastatic						6838H753
M-Leukemia, mononuclear			6832E491	6834F577	6836G682	

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1	Animal sex:	-- F e m a l e s --		A f f e c t e d --		
T i s s u e	W i t h	D i a g n o s e s	C t l s	2	3	4
Cecum	.....	.....	50	50	50	50
N-Leukemia, mononuclear	.....	.....	49	20	20	49
			6832E485	6834F568		
			6832E491			
Urinary bladder	.....	.....	50	20	19	50
Hyperplasia, papillary	.....	.....	6832E456			
M-Leukemia, mononuclear	.....	.....	6832E453	6836G676		
Duodenum	.....	.....	50	20	20	50
Jejunum	.....	.....	50	20	20	50
Ileum	.....	.....	50	20	19	50
N-Leukemia, mononuclear	.....	.....	6832E485			6838H772
Colon	.....	.....	50	20	20	50
Pancreas	.....	.....	50	18	20	50
M-Leukemia, mononuclear	.....	.....	6834F568			
Rectum	.....	.....	50	20	20	50
Adrenal glands	.....	.....	49	20	21	50
Hyperplasia, cortical, focal	.....	.....	6832E454			6838H791
	.....	.....	6832E476			
Hyperplasia, focal	.....	.....	6832E496	6836G653	6838H782	
B-Pheochromocytoma, benign	.....	.....	6832E487	6834F576	6836G668	6838H757
	.....	.....		6836G693		
M-Carcinoma, metastatic	.....	.....				6838H753
M-Leukemia, mononuclear	.....	.....	6832E453	6834F599		6838H752
	.....	.....	6832E457			6838H774
	.....	.....	6832E491			6838H793

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

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Controls from group(s): 1		Animal sex:		A f f e c t e d --	
T i s s u e s	W i t h D i a g n o s e s	D o s a g e g r o u p:	N o. i n g r o u p:	-- F e m a l e s --	
Uterus	.....	.....	.....	.....	.....
Hyperplasia, cystic endometrial	.....	.....	.....	.....	.....
		50	24	31	50
		6832E456	6834F552	6836G670	6838H759
		6832E458	6834F556	6836G674	6838H760
		6832E459	6834F572	6836G679	6838H767
		6832E468	6834F582	6836G690	6838H778
		6832E469			6838H779
		6832E472			6838H781
		6832E478			6838H787
		6832E483			6838H789
		6832E489			6838H791
		6832E491			6838H792
		6832E497			6838H794
			6834F561		
B-Adenoma, endometrial					
		6832E455	6834F552	6836G651	6838H757
		6832E460	6834F556	6836G660	6838H763
		6832E485	6834F562	6836G661	6838H767
		6832E492	6834F563	6836G665	6838H769
		6832E495	6834F565	6836G666	6838H770
			6834F566	6836G667	6838H772
			6834F573	6836G669	6838H780
			6834F582	6836G676	6838H781
			6834F589	6836G683	6838H790
			6834F594	6836G698	6838H791
			6834F595	6836G700	6838H798
			6834F576	6836G667	6838H753
M-Adenocarcinoma, endometrial				6836G670	
			6834F562	6836G671	
M-Leiomyosarcoma					
		6832E453	6834F568		6838H752
		6832E470	6834F576		
			6834F577		
Mesenteric LN		50	19	20	50
N-Sarcoma, histiocytic					6838H751
N-Leukemia, mononuclear					
		6832E453	6834F552	6836G659	6838H752
		6832E459	6834F568	6836G676	6838H764
		6832E462	6834F581	6836G680	6838H770
		6832E470		6836G682	6838H774
		6832E474		6836G685	
		6832E476		6836G687	

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03



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Controls from group(s): 1	-- Animals Affected --	
	-- Females --	
Animal sex:		
Dosage group:		
No. in group:	3	4
Number examined:	50	50
Brain	50	20
M-Astrocytoma, malignant	6834F578	50
Eyes/optic nerve	50	24
Bone, femur	50	19
Spinal cord	50	19
Nose/Turbinates 1	50	49
Hyperplasia - respiratory epithelium	6834F585	6836G664
		6836G700
Nose/Turbinates 2	50	50
Hyperplasia - respiratory epithelium	6834F568	6838H783
	6834F569	
Nose/Turbinates 3	50	50
Nose/Turbinates 4	50	50
Cervix	2	5
B-Polyp, endometrial stromal		3
		6838H769
M-Leiomyosarcoma	6834F570	
N-Adenocarcinoma, endometrial	6834F576	
Clitoral gland	1	0
B-Adenoma		3
		6836G669
M-Carcinoma, squamous cell	6832E494	
N-Adenocarcinoma		6836G678
		6836G687

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03



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Controls from group(s): 1		Animal sex:		A f f e c t e d --	
T i s s u e s	W i t h	D i a g n o s e s	--- F e m a l e s ---		
			CtIs		
Pituitary gland	50	50	32	34	50
Hyperplasia, focal					
	6832E455	6834F567	6836G653	6838H762	
	6832E460	6834F585	6836G663	6838H768	
	6832E461	6834F596	6836G664	6838H770	
	6832E471		6836G675	6838H777	
	6832E479		6836G676		
	6832E489		6836G684		
	6832E494		6836G689		
	6832E496		6836G693		
B-Adenoma, pars distalis					
	6832E458	6834F558	6836G654	6838H754	
	6832E463	6834F561	6836G655	6838H769	
	6832E473	6834F565	6836G657	6838H770	
	6832E474	6834F569	6836G663	6838H779	
	6832E484	6834F573	6836G665	6838H783	
	6832E488	6834F576	6836G666	6838H787	
	6832E493	6834F577	6836G669	6838H788	
		6834F579	6836G672	6838H790	
		6834F580	6836G678	6838H791	
		6834F584	6836G679	6838H799	
		6834F593	6836G687	6838H800	
		6834F594	6836G692		
		6834F600	6836G694		
			6836G695		
B-Adenoma, pars intermedia					
M-Carcinoma		6834F564			
M-Leukemia, mononuclear		6834F577		6838H772	
Tail	0	0	1	1	
Hyperplasia/hyperkeratosis			6836G689	6838H759	
Bone, rib	0	0	0	1	
M-Osteosarcoma				6838H761	

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03



Non-neoplastic Lesions



Controls from group(s): 1	Animal sex:	Animal sex:	Animal sex:	Animal sex:	Animal sex:	
T i s s u e s	W i t h	D i a g n o s e s	C t l s	-- F e m a l e s --	A f f e c t e d --	
Thyroid glands	.....	.....	50	2	3	
Cyst, follicular	.....	.....	50	50	50	
	.....	.....	50	22	22	
	.....	.....	50	6836G693	6836G693	
Parathyroid	.....	.....	47	20	20	50
Aorta	.....	.....	49	20	20	50
Esophagus	.....	.....	50	20	20	50
Larynx	.....	.....	50	50	50	50
Metaplasia, squamous	.....	.....	6832E458	6834F554	6836G651	6838H755
	.....	.....	6832E472	6834F561	6836G654	6838H759
	.....	.....	6832E484	6834F564	6836G655	6838H760
	.....	.....	6832E495	6834F574	6836G657	6838H762
	.....	.....	6832E496	6834F580	6836G665	6838H766
	.....	.....		6834F583	6836G666	6838H768
	.....	.....		6834F588	6836G669	6838H778
	.....	.....		6834F591	6836G677	6838H784
	.....	.....		6834F592	6836G684	6838H787
	.....	.....		6834F600	6836G700	
Inflammation, acute	.....	.....	6832E459		6836G696	
	.....	.....	6832E460			
Inflammation, mixed	.....	.....	6832E451	6834F551	6836G654	6838H752
	.....	.....	6832E452	6834F553	6836G655	6838H754
	.....	.....	6832E453	6834F554	6836G656	6838H757
	.....	.....	6832E455	6834F555	6836G658	6838H759
	.....	.....	6832E457	6834F556	6836G659	6838H760
	.....	.....	6832E458	6834F559	6836G660	6838H761
	.....	.....	6832E461	6834F561	6836G662	6838H762
	.....	.....	6832E462	6834F563	6836G665	6838H764
	.....	.....	6832E464	6834F564	6836G667	6838H766
	.....	.....	6832E467	6834F565	6836G668	6838H768
	.....	.....	6832E470	6834F567	6836G670	6838H769
	.....	.....	6832E471	6834F568	6836G672	6838H770
	.....	.....	6832E473	6834F570	6836G674	6838H771
	.....	.....	6832E476	6834F571	6836G675	6838H772
	.....	.....	6832E477	6834F572	6836G678	6838H773
	.....	.....	6832E478	6834F574	6836G679	6838H775
	.....	.....	6832E479	6834F575	6836G680	6838H777
	.....	.....	6832E480	6834F577	6836G684	6838H778
	.....	.....	6832E483	6834F578	6836G685	6838H779
	.....	.....	6832E484	6834F580	6836G688	6838H783
	.....	.....	6832E487	6834F581	6836G689	6838H784

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

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Controls from group(s): 1		Animal sex:		A f f e c t e d --	
T i s s u e s	W i t h D i a g n o s e s	C t l s	-- F e m a l e s --		
Larynx	.....Number examined:	50	50	50	50
		6832E488	6834F582	6836G693	6838H786
		6832E489	6834F583	6836G695	6838H787
		6832E493	6834F584		6838H788
		6832E495	6834F585		6838H791
		6832E496	6834F586		6838H792
		6832E499	6834F588		6838H793
		6832E500	6834F589		6838H794
			6834F591		6838H795
			6834F592		6838H796
			6834F593		6838H797
			6834F596		6838H799
			6834F598		6838H800
			6834F599		
			6834F600		
Inflammation, chronic		6832E456	6834F594	6836G657	6838H755
		6832E465		6836G669	6838H776
		6832E472		6836G676	6838H780
		6832E475		6836G677	6838H781
		6832E490		6836G682	6838H782
		6832E491		6836G687	6838H789
		6832E492			6838H790
		6832E494			
Salivary gland	.....Number examined:	50	20	20	50
Mandibular LN	.....Number examined:	44	19	21	47
Hemorrhage			6834F576		
Liver	.....Number examined:	50	28	22	50
Angiectasis		6832E482			6838H791
Congestion		6832E452		6836G665	
Fatty Change			6834F571	6836G655	6838H758
				6836G660	6838H783
					6838H787
Foci of cellular alteration, basophilic		6832E478			6838H758
Hepatodiaphragmatic nodule			6834F566		6838H756
			6834F575		6838H771
			6834F577		6838H786

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03









Controls from group(s): 1		-- Animals Affected --	
Tissue	With Diagnosis	Animal sex: -- Females --	Number examined
Pancreas	Fibrosis	CtIs	
		50	50
		50	50
		18	20
			6838H753
Rectum		50	50
Metaplasia, squamous		6834F581	20
Adrenal glands		49	50
Cyst		6836G653	21
			6838H765
Degeneration, cytoplasmic vacuolization		6832E452	6834F593
		6832E458	6838H754
		6832E462	6838H758
		6832E464	6838H762
		6832E467	6838H766
		6832E477	6838H767
		6832E478	6838H769
		6832E483	6838H772
		6832E487	6838H773
		6832E490	6838H781
		6832E495	6838H784
		6832E500	6838H789
			6838H793
			6838H796
			6838H800
Necrosis		6832E457	
Thrombus		6832E457	
Uterus		50	50
Angiectasis		6834F557	31
			6836G659
Dilatation		6836G669	6838H752
		6836G673	6838H753
		6836G678	6838H763
		6836G683	
Intussusception		6832E481	6834F590
			6838H769
			6838H786
Inflammation, mixed		6832E453	
		6832E455	
		6832E460	

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

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Controls from group(s): 1	Animal sex:	Affected
Tissues With Diagnosis	--- Females ---	
Uterus	CtIs	
Inflammation, chronic	No. in group:	
	Number examined:	
	50	31
	6832E466	
	6832E484	
	6832E496	
Mesenteric LN	50	50
Hemorrhage	6832E472	6836G693
Inflammation, chronic	6832E481	6836G659
Ovaries	49	50
Congestion	6836G665	
Cyst, bursa	6836G675	6838H759
Cyst, epithelial	6832E495	6834F556
Cyst, follicular	6836G661	
Cyst, rete ovarii	6836G657	
Hemorrhage	6832E473	
Necrosis, mesenteric fat	6834F596	
Sciatic nerve	50	50
Muscle, skeletal	50	50
Mammary gland	49	47
Ectasia	6832E452	6838H769
	6832E476	
	6832E490	
Skin	50	49
Cyst, epithelial inclusion	6834F576	
Fibrosis	6836G666	
Inflammation, mixed	6836G699	

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

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Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnosis	Ctls	-- Females	3	4
Brain	.....	50	50	50	50
Compression	.....	50	25	25	50
		6832E473	6834F563	6836G654	6838H754
		6832E488	6834F564	6836G655	6838H762
			6834F565	6836G665	6838H769
			6834F569	6836G666	6838H783
			6834F576	6836G669	6838H787
			6834F579	6836G679	6838H788
			6834F584	6836G687	6838H790
			6834F593	6836G692	6838H799
				6836G695	6838H800
Hemorrhage		6832E473	6834F584		
Metaplasia, osseous, meninges					6838H761
Necrosis		6832E474			
Inflammation, chronic					6838H755
Eyes/optic nerve	.....	50	22	24	50
Atrophy	.....	6832E476	6834F572		6838H767
					6838H777
Atrophy, retinal, unilateral			6834F555	6836G699	
			6834F585		
Cataract		6832E476	6834F555	6836G699	6838H777
			6834F572		6838H798
			6834F585		
Metaplasia, osseous, scleral		6832E463			
Mineralization, corneal stromal		6832E453			6838H754
		6832E459			6838H759
		6832E476			6838H767
		6832E494			6838H785
Mineralization, scleral		6832E480	6834F576	6836G682	6838H752
		6832E498	6834F589	6836G693	6838H765
					6838H780
					6838H782
Neovascularization, corneal		6832E453			6838H759
					6838H760

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Lesion Incidence by Animal Number for Microscopic Observations  
 Study Number:FY01013F  
 Printed:15-Jun-04  
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Controls from group(s): 1		Animal sex:		Affected	
T i s s u e s	W i t h	D i a g n o s e s	C t l s	-- F e m a l e s --	
Bone, femur	.....	.....	50	3	4
New bone formation, endosteal	.....	.....	50	50	50
	.....	.....	20	19	50
Spinal cord	.....	.....	50	19	50
Degeneration, white matter	.....	.....	6832E473		6838H792
Hemorrhage	.....	.....	6832E491	6836G682	
Necrosis, neuronal	.....	.....			6838H785
Nose/Turbinates 1	.....	.....	50	49	50
Degeneration, hyaline - respiratory epithelium	.....	.....	6832E482	6836G657	6838H766
	.....	.....	6832E487	6834F563	6838H782
	.....	.....	6832E492	6834F572	
	.....	.....		6836G690	
	.....	.....		6834F582	
	.....	.....		6836G693	
	.....	.....		6834F585	
	.....	.....		6836G697	
	.....	.....		6834F589	
	.....	.....		6836G698	
	.....	.....		6834F590	
Inflammation, mixed	.....	.....	6832E457	6836G664	6838H752
	.....	.....	6832E464	6834F561	6838H753
	.....	.....	6832E472	6834F569	6838H757
	.....	.....	6832E477	6834F571	6838H783
	.....	.....	6832E486	6834F593	
Inflammation - nasolacrimal duct	.....	.....	6832E451	6836G653	6838H751
	.....	.....	6832E452	6834F557	6838H752
	.....	.....	6832E456	6834F559	6838H753
	.....	.....	6832E457	6834F561	6838H754
	.....	.....	6832E465	6834F563	6838H755
	.....	.....	6832E471	6834F571	6838H757
	.....	.....	6832E472	6834F578	6838H758
	.....	.....	6832E474	6834F584	6838H759
	.....	.....	6832E475	6834F585	6838H760
	.....	.....	6832E476	6834F593	6838H762
	.....	.....	6832E477	6834F594	6838H767
	.....	.....	6832E478	6834F596	6838H770
	.....	.....	6832E480	6834F597	6838H772
	.....	.....	6832E484	6834F598	6838H776
	.....	.....	6832E485	6834F599	6838H780
	.....	.....	6832E489	6836G686	6838H783
	.....	.....	6832E490	6836G691	6838H785
	.....	.....	6832E494	6836G693	6838H788
	.....	.....	6832E495	6836G695	6838H789

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03



Controls from group(s): 1		-- Animals Affected --	
Animal sex:	Animal sex:	Animal sex:	Animal sex:
Dosage group:	Dosage group:	Dosage group:	Dosage group:
No. in group:	No. in group:	No. in group:	No. in group:
Number examined:	Number examined:	Number examined:	Number examined:
Nose/Turbinate 3	50	50	50
		6836G664	6838H785
		6836G679	6838H791
		6836G680	6838H792
		6836G695	
		6836G697	
Degeneration - respiratory epithelium		6834F557	6838H797
		6834F588	
Inflammation, mixed		6832E477	6836G666
		6834F557	
		6834F561	
		6834F588	
Nose/Turbinate 4	50	50	50
Degeneration - olfactory epithelium		6834F557	
Degeneration, hyaline - olfactory epithelium		6832E453	6838H753
		6832E472	6838H768
		6832E475	6838H791
Inflammation, mixed		6832E477	6834F557
Cervix	2	5	2
Clitoral gland	1	0	0
Lymph node other	3	1	1
Hemorrhage		6832E494	
Infiltration, histiocytic		6832E494	
Popliteal LN	1	1	0
Iliac LN	2	2	0
Pancreatic LN	2	1	1

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03





Lesion Incidence by Animal Number for Microscopic Observations  
Study Number: FY01013F

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Controls from group(s): 1		-- Animals Affected --	
Animal sex:	-- Females --		
Dosage group:	3	CtIs	4
No. in group:	2		3
	50		50
Vagina .....	1		0
			0
Tiss.not specifi .....	0		0
			0

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

N-3 Incidence Summary (with percentages) of Microscopic Observations

Proliferative (including Neoplastic) Lesions

Controls from group(s): 1		Animal sex:	
T i s u e s	W i t h D i a g n o s e s	-- F e m a l e s --	A f f e c t e d --
		CtIs	
Lungs	.....Number examined:	50	50
Hyperplasia, alveolar epithelial, focal		7	1
		14%	2%
N-Carcinoma, metastatic		0	0
		0%	0%
N-Leukemia, mononuclear - capillary involvement		22	12
		44%	24%
N-Leukemia, mononuclear - invasive involvement		3	2
		6%	4%
N-Sarcoma, histiocytic		0	1
		0%	2%
Trachea	.....Number examined:	50	50
Hyperplasia		0	1
		0%	2%
N-Leukemia, mononuclear		0	1
		0%	2%
Bronchial (TBLN)	.....Number examined:	48	20
N-Leukemia, mononuclear		9	7
		19%	35%
Thyroid glands	.....Number examined:	50	22
Hyperplasia, C-cell, focal		3	1
		6%	5%
Hyperplasia, follicular cell		1	0
		2%	0%
B-Adenoma, C-cell		1	3
		2%	14%
B-Adenoma, follicular cell		0	0
		0%	0%
M-Carcinoma, C-cell		1	0
		2%	0%
M-Carcinoma, follicular cell		1	1
		2%	5%

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1	-- Animals		Affected --	
	Male	Female	Male	Female
Animal sex:	2	3	4	
Dosage group:	50	50	50	50
No. in group:	50	22	22	50
Number examined:	0	0	0	1
	0%	0%	0%	2%
Thyroid glands	47	20	20	50
M-Leukemia, mononuclear	1	0	0	0
Hyperplasia, focal	2%	0%	0%	0%
B-Adenoma	1	0	0	0
	2%	0%	0%	0%
Aorta	49	20	20	50
N-Leukemia, mononuclear - invasive involvement	1	0	0	0
	2%	0%	0%	0%
Esophagus	50	20	20	50
Larynx	50	50	50	50
Hyperplasia	17	10	5	15
	34%	20%	10%	30%
Salivary gland	50	20	20	50
M-Leukemia, mononuclear	2	0	0	1
	4%	0%	0%	2%
Mandibular LN	44	19	21	47
N-Leukemia, mononuclear	12	6	5	5
	27%	32%	24%	11%
Liver	50	28	22	50
Hyperplasia, biliary	35	16	17	24
	70%	57%	77%	48%
Hyperplasia, hepatocellular, regenerative	1	1	1	1
	2%	4%	5%	2%
B-Adenoma, hepatocellular	1	0	0	0
	2%	0%	0%	0%
M-Sarcoma. histiocytic	0	0	1	1
	0%	0%	5%	2%
M-Leukemia, mononuclear	27	17	10	23
	54%	61%	45%	46%

ALL Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animal sex:	
T i s u e s	W i t h	D i a g n o s e s	D o s a g e
		No. in group:	g r o u p
		Number examined:	
Spleen	.....	50	22
M-Leukemia, mononuclear	.....	27	12
		54%	55%
N-Sarcoma, histiocytic	.....	0	0
		0%	0%
Kidneys	.....	50	20
M-Leukemia, mononuclear	.....	1	1
		2%	5%
N-Sarcoma, histiocytic	.....	0	0
		0%	0%
Heart	.....	50	20
M-Leukemia, mononuclear	.....	5	2
		10%	10%
Stomach	.....	50	20
M-Carcinoma, metastatic	.....	0	0
		0%	0%
M-Leukemia, mononuclear	.....	1	1
		2%	5%
Cecum	.....	49	20
N-Leukemia, mononuclear	.....	2	1
		4%	5%
Urinary bladder	.....	50	20
Hyperplasia, papillary	.....	1	0
		2%	0%
M-Leukemia, mononuclear	.....	1	0
		2%	0%
Duodenum	.....	50	20
Jejunum	.....	50	20
Ileum	.....	50	20
N-Leukemia, mononuclear	.....	1	0
		2%	0%

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1	-- Animals		Affected --	
	With Diseases	Female	Male	Sex
	CtIs	2	3	4
Tissues	50	50	50	50
Colon	50	20	20	50
Pancreas	50	18	20	50
M-Leukemia, mononuclear	0	1	0	0
	0%	6%	0%	0%
Rectum	50	20	20	50
Adrenal glands	49	20	21	50
Hyperplasia, cortical, focal	2	0	0	1
	4%	0%	0%	2%
Hyperplasia, focal	1	0	2	2
	2%	0%	10%	4%
B-Pheochromocytoma, benign	1	1	2	1
	2%	5%	10%	2%
M-Carcinoma, metastatic	0	0	0	1
	0%	0%	0%	2%
M-Leukemia, mononuclear	3	1	0	3
	6%	5%	0%	6%
Uterus	50	24	31	50
Hyperplasia, cystic endometrial	11	4	4	11
	22%	17%	13%	22%
B-Adenoma, endometrial	0	1	0	0
	0%	4%	0%	0%
B-Polyp, endometrial stromal	5	11	11	11
	10%	46%	35%	22%
M-Adenocarcinoma, endometrial	0	1	2	1
	0%	4%	6%	2%
M-Leiomyosarcoma	0	1	1	0
	0%	4%	3%	0%
M-Leukemia, mononuclear	2	3	0	1
	4%	13%	0%	2%

All Proliferative Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03



Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diseases	Animal sex:	Animal sex:	Female	Male
		Dosage group:	Dosage group:	3	4
		No. in group:	No. in group:	50	50
Eyes/optic nerve		Number examined:	Number examined:	24	50
Bone, femur		Number examined:	Number examined:	19	50
Spinal cord		Number examined:	Number examined:	19	50
Nose/Turbinates 1		Number examined:	Number examined:	49	50
Hyperplasia - respiratory epithelium		0	2	2	4
		0%	2%	4%	4%
Nose/Turbinates 2		50	50	50	50
Hyperplasia - respiratory epithelium		0	2	0	1
		0%	4%	0%	2%
Nose/Turbinates 3		50	50	50	50
Nose/Turbinates 4		50	50	50	50
Cervix		2	5	3	2
B-Polyp, endometrial stromal		0	0	0	1
		0%	0%	0%	50%
M-Leiomyosarcoma		0	1	0	0
		0%	20%	0%	0%
N-Adenocarcinoma, endometrial		0	1	0	0
		0%	20%	0%	0%
Clitoral gland		1	0	3	0
B-Adenoma		0	0	1	0
		0%	0%	33%	0%
M-Carcinoma, squamous cell		1	0	0	0
		100%	0%	0%	0%
N-Adenocarcinoma		0	0	2	0
		0%	0%	67%	0%
Lymph node other		3	1	3	1
N-Leukemia, mononuclear		2	1	2	1
		67%	100%	67%	100%
Popliteal LN		1	1	0	0
N-Leukemia, mononuclear		1	1	0	0
		100%	100%	0%	0%

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Tissues With Diagnoses	-- Animals		Affected --	
	CtIs	-- Females --		
Controls from group(s): 1				
Animal sex:				
Dosage group:				
No. in group:	50	50	50	50
Number examined:	2	2	2	0
Iliac LN	2	2	2	0
N-Leukemia, mononuclear	100%	100%	100%	0%
Pancreatic LN	2	1	2	1
N-Leukemia, mononuclear	100%	100%	100%	100%
Mediastinal LN	50	20	20	47
B-Thymoma	0	0	1	0
M-Carcinoma, metastatic	0	0	0	2%
N-Sarcoma, histiocytic	0	0	1	0
N-Leukemia, mononuclear	12	5	5	5
Pituitary gland	24%	25%	25%	11%
Hyperplasia, focal	50	32	34	50
B-Adenoma, pars distalis	8	3	8	4
B-Adenoma, pars intermedia	16%	9%	24%	8%
M-Carcinoma	7	13	14	11
M-Leukemia, mononuclear	14%	41%	41%	22%
Tail	0	0	1	0
Hyperplasia/hyperkeratosis	0	0	3%	0%
Number examined:	0	0	0	0
	0	0	1	1
	0	0	1	1
	0	0	100%	100%

ALL Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animal sex:		Affected	
Tissues	With Doses	Male	Female	Male	Female
		CtIs	CtIs		
Bone, rib		0	0	0	1
M-Osteosarcoma		0%	0%	0%	100%
Mesentery		1	0	0	1
M-Carcinoma, metastatic		0	0	0	1
		0%	0%	0%	100%
Bone, vertebrae		1	0	0	0
N-Leukemia, mononuclear		1	0	0	0
		100%	0%	0%	0%
Zymbal's gland		1	0	0	0
M-Carcinoma, squamous cell		1	0	0	0
		100%	0%	0%	0%
Mediastinum		1	0	0	0
N-Leukemia, mononuclear		1	0	0	0
		100%	0%	0%	0%
Bone, other		0	0	1	0
Harderian gland		0	0	1	0
Vagina		0	1	0	0
M-Leiomyosarcoma		0	1	0	0
		0%	100%	0%	0%
Tiss.not specifi		0	0	0	0

All Proliferative Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Non-neoplastic Lesions

Controls from group(s): 1		Animal sex:	
T i s u e s	W i t h	D i a g n o s e s	--- F e m a l e s ---
		CtIs	
Lungs	50	50	50
Alveolar histiocytosis	9	3	3
	18%	6%	6%
Congestion	1	0	2
	2%	0%	4%
Fibrosis, focal	0	1	0
	0%	2%	0%
Hemorrhage	5	1	1
	10%	2%	2%
Inflammation, acute	1	1	0
	2%	2%	0%
Inflammation, mixed	0	0	1
	0%	0%	2%
Inflammation, granulomatous	0	0	1
	0%	0%	2%
Trachea	50	50	50
Inflammation, acute	2	0	0
	4%	0%	0%
Inflammation, mixed	1	0	1
	2%	0%	2%
Bronchial (TBLN)	48	19	20
Hemorrhage	1	3	0
	2%	16%	0%
Inflammation, mixed	0	0	1
	0%	0%	5%
Thyroid glands	50	22	22
Cyst, follicular	0	0	1
	0%	0%	5%

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animal sex:	
Tissues	With Diagnoses	Male	Female
Parathyroid	47	20	20
Aorta	49	20	20
Esophagus	50	20	20
Larynx	50	50	50
Metaplasia, squamous	5	10	9
Inflammation, acute	10%	20%	18%
Inflammation, mixed	2	0	1
Inflammation, chronic	4%	0%	2%
Salivary gland	28	35	23
Mandibular LN	56%	70%	46%
Hemorrhage	8	1	6
Liver	16%	2%	12%
Angiectasis	50	28	22
Congestion	1	0	0
Fatty Change	2%	0%	0%
Foci of cellular alteration, basophilic	1	0	0
Hepatodiaphragmatic nodule	0	1	2
Necrosis	0%	4%	9%
Thrombus	3	3	1
	6%	11%	5%
	0	0	0
	0%	0%	0%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		-- Animals		Affected --	
Tissues	With Diagnoses	Male	Female	Male	Female
		50	50	50	50
		28	22	22	22
		10%	4%	5%	2%
Liver	Vacuolization cytoplasmic	5	1	1	1
		10%	4%	5%	2%
	Inflammation, acute	1	0	0	0
		2%	0%	0%	0%
	Inflammation, chronic	13	5	3	17
		26%	18%	14%	34%
Spleen		50	22	24	50
	Fibrosis	3	0	1	0
		6%	0%	4%	0%
	Hemorrhage	0	0	0	1
		0%	0%	0%	2%
	Necrosis	1	1	0	2
		2%	5%	0%	4%
Kidneys		50	20	21	50
	Atrophy	0	0	0	1
		0%	0%	0%	2%
	Cyst	1	0	0	3
		2%	0%	0%	6%
	Degeneration, hyaline droplet	0	0	0	1
		0%	0%	0%	2%
	Dilatation	0	0	0	1
		0%	0%	0%	2%
	Infarct	0	0	0	1
		0%	0%	0%	2%
	Nephropathy, chronic	42	17	15	43
		84%	85%	71%	86%
	Pigment accumulation, tubular epithelium	0	2	0	2
		0%	10%	0%	4%

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animal sex:	
		-- F e m a l e s --	
T i s s u e s	W i t h D i a g n o s e s	C t l s	2 3 4
No. in group:		50	50
Number examined:		20	20
Heart	.....	50	50
Degeneration, myocyte	.....	3	0
	.....	6%	0%
Fibrosis	.....	1	0
	.....	2%	0%
Thrombus	.....	1	0
	.....	2%	0%
Inflammation, focal, chronic	.....	24	7
	.....	48%	35%
	.....		40%
	.....		26
	.....		52%
Stomach	.....	50	20
Ulcer	.....	0	1
	.....	0%	5%
Inflammation, mixed	.....	0	1
	.....	0%	5%
	.....		0%
	.....		0%
Cecum	.....	49	20
Urinary bladder	.....	50	20
Hemorrhage	.....	1	0
	.....	2%	0%
Inflammation, chronic	.....	2	0
	.....	4%	0%
Duodenum	.....	50	20
Inflammation, acute	.....	0	1
	.....	0%	5%
Jejunum	.....	50	20
Ileum	.....	50	20
Colon	.....	50	20
Pancreas	.....	50	18
Fibrosis	.....	0	0
	.....	0%	0%
	.....		0%
	.....		2%

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animal sex:	
T i s u e s	W i t h D i a g n o s e s	-- F e m a l e s --	A f f e c t e d --
Rectum	Number examined:	CtIs	
Metaplasia, squamous	50	20	20
	0	1	0
	0%	5%	0%
Adrenal glands	49	20	21
Cyst	0	0	1
	0%	0%	5%
			2%
Degeneration, cytoplasmic vacuolization	12	1	0
	24%	5%	0%
			14
			28%
Necrosis	1	0	0
	2%	0%	0%
			0%
Thrombus	1	0	0
	2%	0%	0%
Uterus	50	24	31
Angiectasis	0	0	1
	0%	0%	3%
			0%
Dilatation	0	1	4
	0%	4%	13%
			3
			6%
Intussusception	1	1	0
	2%	4%	0%
			4%
Inflammation, mixed	3	0	0
	6%	0%	0%
			0%
Inflammation, chronic	3	0	0
	6%	0%	0%
Mesenteric LN	50	19	20
Hemorrhage	1	0	1
	2%	0%	5%
			0%
Inflammation, chronic	1	0	1
	2%	0%	5%
			0%

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03



Controls from group(s): 1		Animal sex:	
T i s u e s	W i t h D i a g n o s e s	-- F e m a l e s --	A f f e c t e d --
Brain	Metaplasia, osseous, meninges	CtIs	
		50	50
		0	0
		0%	0%
Necrosis		1	0
		2%	0%
Inflammation, chronic		0	1
		0%	2%
Eyes/optic nerve		50	50
Atrophy		1	2
		2%	4%
Atrophy, retinal, unilateral		0	0
		0%	0%
Cataract		1	2
		2%	4%
Metaplasia, osseous, scleral		1	0
		2%	0%
Mineralization, corneal stromal		4	4
		8%	8%
Mineralization, scleral		2	4
		4%	8%
Neovascularization, corneal		1	2
		2%	4%
Bone, femur		50	50
New bone formation, endosteal		0	1
		0%	2%
Spinal cord		50	50
Degeneration, white matter		1	1
		2%	2%
Hemorrhage		1	0
		2%	0%
Necrosis, neuronal		0	1
		0%	2%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		-- Animals		Affected --	
T i s s u e s	W i t h D i a g n o s e s	CtIs	-- F e m a l e s --		
Nose/Turbinate 1	.....Number examined:	50	50	49	50
Degeneration, hyaline - respiratory epithelium		3	7	6	2
		6%	14%	12%	4%
Inflammation, mixed		5	5	4	4
		10%	10%	8%	8%
Inflammation - nasolacrimal duct		21	15	20	22
		42%	30%	41%	44%
Inflammation - respiratory epithelium		1	0	0	1
		2%	0%	0%	2%
Nose/Turbinate 2	.....Number examined:	50	50	50	50
Degeneration, hyaline - olfactory epithelium		4	5	6	10
		8%	10%	12%	20%
Degeneration, hyaline - respiratory epithelium		0	1	7	6
		0%	2%	14%	12%
Metaplasia, secretory - olfactory epithelium		1	0	0	0
		2%	0%	0%	0%
Metaplasia, squamous - olfactory epithelium		0	0	1	0
		0%	0%	2%	0%
Inflammation, mixed		3	4	2	2
		6%	8%	4%	4%
Nose/Turbinate 3	.....Number examined:	50	50	50	50
Degeneration - olfactory epithelium		0	1	0	0
		0%	2%	0%	0%
Degeneration, hyaline - olfactory epithelium		4	2	10	8
		8%	4%	20%	16%
Degeneration - respiratory epithelium		0	2	0	1
		0%	4%	0%	2%
Inflammation, mixed		1	3	1	0
		2%	6%	2%	0%

All Nonneoplastic Diagnoses: Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		-- Animals Affected --	
Animal sex:	Animal sex:	Female	Male
Dosage group:	Dosage group:	3	4
No. in group:	No. in group:	50	50
Number examined:	Number examined:	50	50
Tissues With Diagnosis	CtIs	2	3
Nose/Turbinate 4	50	50	50
Degeneration - olfactory epithelium	0	1	0
	0%	2%	0%
Degeneration, hyaline - olfactory epithelium	3	0	0
	6%	0%	0%
Inflammation, mixed	1	1	0
	2%	2%	0%
Cervix	2	5	3
Clitoral gland	1	0	3
Lymph node other	3	1	3
Hemorrhage	1	0	0
	33%	0%	0%
Infiltration, histiocytic	1	0	0
	33%	0%	0%
Popliteal LN	1	1	0
Iliac LN	2	2	2
Pancreatic LN	2	1	2
Mediastinal LN	50	20	20
Hemorrhage	4	1	1
	8%	5%	5%
Infiltration, histiocytic	0	0	1
	0%	0%	2%
Pigmentation	0	0	1
	0%	0%	2%
Pituitary gland	50	32	34
Angiectasis	9	1	3
	18%	3%	9%
Cyst	24	9	10
	48%	28%	29%
Degeneration	1	0	0
	2%	0%	0%
Hemorrhage	5	0	0
	10%	0%	0%

Controls from group(s): 1		-- Animals		Affected --	
	Animal sex:	-- Females --			
	Dosage group:				
T i s s u e s	W i t h	D i a g n o s e s	C t l s	2	3
			50	50	50
			50	34	50
			0	0	1
			0%	0%	2%
Pituitary gland		Number examined:	32	34	50
Necrosis			0	0	1
Tail		Number examined:	0	1	1
Inflammation, acute			0	1	0
Inflammation, mixed			0%	100%	0%
Bone, rib		Number examined:	0	0	1
Mesentery			1	0	1
Splenic tissue, "accessory"			1	0	0
			100%	0%	0%
Bone, vertebrae		Number examined:	1	0	0
Zymbal's gland			1	0	0
Mediastinum		Number examined:	1	0	0
Bone, other			0	1	0
Fracture			0	1	0
			0%	100%	0%
Harderian gland		Number examined:	0	1	0
Pigment			0	1	0
			0%	100%	0%
Vagina		Number examined:	0	1	0
Tiss.not specifi			0	0	0

All Nonneoplastic Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

N-4 Tabulated Incidence Summary of Non-neoplastic Lesions



Controls from group(s): 1	-- Animals		Affected --	
	CtIs	-- Females		
T i s s u e s W i t h D i a g n o s e s	50	50	50	50
Larynx	50	50	50	50
Hyperplasia, Minimal.	12	8	5	7
Hyperplasia, Mild.	5	2	0	8
Metaplasia, squamous, Minimal.	1	5	7	9
Metaplasia, squamous, Mild.	3	5	3	0
Metaplasia, squamous, Moderate.	1	0	0	0
Inflammation, acute, Minimal.	2	0	1	0
Inflammation, mixed, Minimal.	10	20	14	17
Inflammation, mixed, Mild.	17	15	9	16
Inflammation, mixed, Moderate.	1	0	0	0
Inflammation, chronic, Minimal.	8	1	4	5
Inflammation, chronic, Mild.	0	0	2	2
Salivary gland	50	20	20	50
Mandibular LN	44	19	21	47
Hemorrhage, Mild.	0	1	0	0
Liver	50	28	22	50
Necrosis, Minimal.	2	1	0	3
Necrosis, Mild.	0	1	1	1
Necrosis, Moderate.	1	1	0	1
Vacuolization cytoplasmic, Minimal.	1	0	0	0
Vacuolization cytoplasmic, Mild.	1	1	1	1
Vacuolization cytoplasmic, Moderate.	3	0	0	0
Inflammation, acute, Mild.	1	0	0	0
Angiectasis, Minimal.	1	0	0	1
Hyperplasia, biliary, Minimal.	12	8	9	19
Hyperplasia, biliary, Mild.	22	8	7	5
Hyperplasia, biliary, Moderate.	1	0	1	0
Hyperplasia, hepatocellular, regenerative, Minimal.	0	0	0	1
Hyperplasia, hepatocellular, regenerative, Mild.	0	1	1	0
Hyperplasia, hepatocellular, regenerative, Moderate.	1	0	0	0
Inflammation, chronic, Minimal.	10	4	2	16
Inflammation, chronic, Mild.	3	1	1	1
Fatty Change, Minimal.	0	1	1	1
Fatty Change, Mild.	0	0	1	2
Hepatodiaphragmatic nodule, Present.	0	5	0	3
Foci of cellular alteration, basophilic, Mild.	0	0	0	1
Foci of cellular alteration, basophilic, Moderate.	1	0	0	0
Congestion, Mild.	1	0	1	0
Thrombus, Mild.	0	0	0	1

Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	-- Animals		Affected --	
	CtIs	-- Females	CtIs	--
Tissues With Diagnoses	50	50	50	50
Spleen	50	22	24	50
Fibrosis, Minimal.	1	0	1	0
Fibrosis, Mild.	1	0	0	0
Fibrosis, Moderate.	1	0	0	0
Necrosis, Mild.	1	0	0	0
Necrosis, Moderate.	0	0	0	1
Necrosis, Marked.	0	1	0	1
Hemorrhage, Moderate.	0	0	0	1
Kidneys	50	20	21	50
Pigment accumulation, tubular epithelium, Minimal.	0	0	0	1
Pigment accumulation, tubular epithelium, Moderate.	0	2	0	1
Nephropathy, chronic, Minimal.	32	14	11	16
Nephropathy, chronic, Mild.	10	3	3	20
Nephropathy, chronic, Moderate.	0	0	1	7
Cyst, Mild.	0	0	0	1
Cyst, Moderate.	1	0	0	2
Degeneration, hyaline droplet, Marked.	0	0	0	1
Dilatation, Moderate.	0	0	0	1
Atrophy, Marked.	0	0	0	1
Infarct, Moderate.	0	0	0	1
Heart	50	20	20	50
Inflammation, focal, chronic, Minimal.	23	7	8	25
Inflammation, focal, chronic, Mild.	1	0	0	1
Degeneration, myocyte, Minimal.	2	0	0	3
Degeneration, myocyte, Mild.	1	0	0	0
Fibrosis, Minimal.	1	0	0	0
Thrombus, Minimal.	1	0	0	0
Stomach	50	20	20	50
Inflammation, mixed, Mild.	0	1	0	0
Ulcer, Mild.	0	1	0	0
Cecum	49	20	20	49
Urinary bladder	50	20	19	50
Inflammation, chronic, Minimal.	2	0	0	3
Hyperplasia, papillary, Mild.	1	0	0	0
Hemorrhage, Mild.	1	0	0	0

Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	Animal sex:	Number examined:	Number affected:
Tissues With Diagnoses	Dosage group:	Female	Male
	No. in group:		
	Number examined:		
Duodenum	50	20	20
Inflammation, acute, Moderate.	0	1	0
Jejunum	50	20	20
Ileum	50	20	19
Colon	50	20	20
Pancreas	50	18	20
Fibrosis, Mild.	0	0	0
Rectum	50	20	20
Metaplasia, squamous, Mild.	0	1	0
Adrenal glands	49	20	21
Hyperplasia, focal, Present.	1	0	2
Degeneration, cytoplasmic vacuolization, Minimal.	10	0	12
Degeneration, cytoplasmic vacuolization, Mild.	1	1	0
Degeneration, cytoplasmic vacuolization, Moderate.	1	0	0
Hyperplasia, cortical, focal, Minimal.	2	0	1
Thrombus, Minimal.	1	0	0
Cyst, Minimal.	0	0	0
Cyst, Mild.	0	0	1
Necrosis, Minimal.	1	0	0
Uterus	50	24	31
Dilatation, Minimal.	0	0	1
Dilatation, Mild.	0	1	2
Dilatation, Moderate.	0	0	1
Dilatation, Marked.	0	0	0
Hyperplasia, cystic endometrial, Minimal.	5	0	0
Hyperplasia, cystic endometrial, Mild.	4	3	2
Hyperplasia, cystic endometrial, Moderate.	1	1	2
Hyperplasia, cystic endometrial, Marked.	1	0	0
Inflammation, chronic, Minimal.	3	0	0
Inflammation, mixed, Minimal.	1	0	0
Inflammation, mixed, Mild.	2	0	0
Intussusception, Present.	1	1	0
Angiectasis, Mild.	0	0	1

Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	Animal sex:	Number examined:
Tissues With Diagnoses	Female	Male
	CtIs	50
Mesenteric LN	50	50
Hemorrhage, Mild.	1	0
Inflammation, chronic, Minimal.	0	0
Inflammation, chronic, Moderate.	1	0
Ovaries	49	23
Hemorrhage, Mild.	1	0
Cyst, bursa, Present.	0	0
Cyst, epithelial, Present.	1	0
Congestion, Mild.	0	0
Necrosis, mesenteric fat, Mild.	0	0
Cyst, rete ovarii, Mild.	0	0
Cyst, follicular, Present.	0	0
Sciatic nerve	50	19
Muscle, skeletal	50	20
Mammary gland	49	22
Ectasia, Minimal.	2	0
Ectasia, Mild.	0	0
Ectasia, Moderate.	1	0
Hyperplasia, lobular, Minimal.	1	0
Hyperplasia, lobular, Mild.	0	0
Skin	50	19
Fibrosis, Moderate.	0	0
Cyst, epithelial inclusion, Present.	0	1
Inflammation, mixed, Minimal.	0	0
Brain	50	25
Compression, Minimal.	0	1
Compression, Mild.	0	4
Compression, Moderate.	1	3
Compression, Marked.	1	0
Necrosis, Mild.	1	0
Metaplasia, osseous, meninges, Minimal.	0	0
Hemorrhage, Mild.	1	1
Inflammation, chronic, Marked.	0	0

Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	Animal sex:	Animal sex:
T i s s u e s    W i t h    D i a g n o s e s	-- F e m a l e s --	-- F e m a l e s --
Eyes/optic nerve .....	CtIs	CtIs
Mineralization, corneal stromal, Minimal.	50	50
Mineralization, corneal stromal, Mild.	3	0
Mineralization, scleral, Minimal.	1	0
Mineralization, scleral, Mild.	2	0
Atrophy, Moderate.	0	2
Atrophy, Marked.	1	0
Atrophy, retinal, unilateral, Mild.	0	1
Atrophy, retinal, unilateral, Marked.	0	2
Cataract, Present.	1	3
Neovascularization, corneal, Minimal.	1	0
Metaplasia, osseous, scleral, Minimal.	1	0
Bone, femur .....	50	20
New bone formation, endosteal, Minimal.	0	0
Spinal cord .....	50	20
Degeneration, white matter, Minimal.	0	0
Degeneration, white matter, Mild.	1	0
Hemorrhage, Minimal.	0	0
Hemorrhage, Mild.	1	0
Necrosis, neuronal, Minimal.	0	0
Nose/Turbinates 1 .....	50	50
Inflammation - nasolacrimal duct, Minimal.	4	2
Inflammation - nasolacrimal duct, Mild.	9	6
Inflammation - nasolacrimal duct, Moderate.	8	7
Inflammation - nasolacrimal duct, Marked.	0	0
Inflammation, mixed, Minimal.	0	2
Inflammation, mixed, Mild.	1	2
Inflammation, mixed, Moderate.	3	1
Inflammation, mixed, Marked.	1	0
Inflammation - respiratory epithelium, Mild.	0	0
Inflammation - respiratory epithelium, Moderate.	1	0
Hyperplasia - respiratory epithelium, Minimal.	0	1
Hyperplasia - respiratory epithelium, Mild.	0	0
Degeneration, hyaline - respiratory epithelium, Minimal.	1	5
Degeneration, hyaline - respiratory epithelium, Mild.	0	2
Degeneration, hyaline - respiratory epithelium, Moderate.	2	0

Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1		-- Animals		Affected --	
T i s s u e s	W i t h D i a g n o s e s	CtIs	-- F e m a l e s		
		50	50	50	50
Nose/Turbinates 2	.....Number examined:	50	50	50	50
Degeneration, hyaline - olfactory epithelium, Minimal.		3	2	3	5
Degeneration, hyaline - olfactory epithelium, Mild.		1	3	2	5
Degeneration, hyaline - olfactory epithelium, Moderate.		0	0	1	0
Inflammation, mixed, Minimal.		0	2	1	1
Inflammation, mixed, Mild.		1	2	1	0
Inflammation, mixed, Moderate.		1	0	0	1
Inflammation, mixed, Marked.		1	0	0	0
Metaplasia, secretory - olfactory epithelium, Marked.		1	0	0	0
Hyperplasia - respiratory epithelium, Mild.		0	2	0	0
Degeneration, hyaline - respiratory epithelium, Moderate.		0	0	0	1
Degeneration, hyaline - respiratory epithelium, Minimal.		0	1	2	2
Degeneration, hyaline - respiratory epithelium, Mild.		0	0	4	4
Degeneration, hyaline - respiratory epithelium, Moderate.		0	0	1	0
Metaplasia, squamous - olfactory epithelium, Minimal.		0	0	1	0
Nose/Turbinates 3	.....Number examined:	50	50	50	50
Degeneration, hyaline - olfactory epithelium, Minimal.		3	1	4	2
Degeneration, hyaline - olfactory epithelium, Mild.		0	1	3	4
Degeneration, hyaline - olfactory epithelium, Moderate.		1	0	3	2
Inflammation, mixed, Minimal.		0	1	0	0
Inflammation, mixed, Mild.		0	2	1	0
Inflammation, mixed, Moderate.		1	0	0	0
Degeneration - respiratory epithelium, Mild.		0	2	0	1
Degeneration - olfactory epithelium, Minimal.		0	1	0	0
Nose/Turbinates 4	.....Number examined:	50	50	50	50
Inflammation, mixed, Mild.		1	1	0	0
Degeneration, hyaline - olfactory epithelium, Minimal.		2	0	0	3
Degeneration, hyaline - olfactory epithelium, Mild.		1	0	0	0
Degeneration - olfactory epithelium, Mild.		0	1	0	0
Cervix	.....Number examined:	2	5	3	2
Clitoral gland	.....Number examined:	1	0	3	0
Lymph node other	.....Number examined:	3	1	3	1
Infiltration, histiocytic, Mild.		1	0	0	0
Hemorrhage, Minimal.		1	0	0	0
Popliteal LN	.....Number examined:	1	1	0	0
Iliac LN	.....Number examined:	2	2	2	0
Pancreatic LN	.....Number examined:	2	1	2	1

Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	-- Animals		Affected --	
	Ctls	-- Females	Ctls	Affected
Tissue with Diagnoses	50	20	50	47
Mediastinal LN	0	0	0	0
Pigmentation, Moderate.	0	0	0	0
Infiltration, histiocytic, Moderate.	0	0	0	0
Hemorrhage, Mild.	3	1	1	1
Hemorrhage, Moderate.	1	0	0	0
Pituitary gland	50	32	34	50
Cyst, Minimal.	8	2	2	6
Cyst, Mild.	11	5	4	6
Cyst, Moderate.	4	1	4	0
Cyst, Marked.	1	1	0	0
Degeneration, Mild.	1	0	0	0
Hyperplasia, focal, Minimal.	1	1	2	1
Hyperplasia, focal, Mild.	3	1	3	1
Hyperplasia, focal, Moderate.	4	1	2	2
Hyperplasia, focal, Marked.	0	0	1	0
Hemorrhage, Minimal.	2	0	0	2
Hemorrhage, Mild.	1	0	0	2
Hemorrhage, Moderate.	2	0	0	6
Angiectasis, Minimal.	2	0	0	2
Angiectasis, Mild.	5	0	1	1
Angiectasis, Moderate.	2	1	2	2
Angiectasis, Marked.	0	0	0	1
Necrosis, Moderate.	0	0	0	1
Tail	0	0	1	1
Inflammation, mixed, Moderate.	0	0	0	1
Hyperplasia/hyperkeratosis, Moderate.	0	0	1	0
Hyperplasia/hyperkeratosis, Marked.	0	0	0	1
Inflammation, acute, Mild.	0	0	1	0
Bone, rib	0	0	0	1
Mesentery	1	0	0	1
Splenic tissue, "accessory", Present.	1	0	0	0
Bone, vertebrae	1	0	0	0
Zymbal's gland	1	0	0	0
Mediastinum	1	0	0	0

Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

Controls from group(s): 1	-- Animals		Affected --	
	Animal sex:	Female	Male	
Tissue With Diagnosis	Dosage group:	2	3	4
	No. in group:	50	50	50
Bone, other	Number examined:	0	1	0
Fracture, Present.		0	1	0
Harderian gland	Number examined:	0	1	0
Pigment, Mild.		0	1	0
Vagina	Number examined:	0	1	0
Tiss.not specifi	Number examined:	0	0	0

Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03  
 Diagnoses tabulated by: Tissue locators, Severity levels, Distribution, Duration.

N-5 Lesion Incidence Summary with Average Severity Grades

Lesion incidence summary with average severity grades  
 Study Number: FY01013F  
 Rat/F344/N

Controls from group(s): 1	Animal sex:	-- Animals Affected --	
Tissues With Diagnosis	Dosage group:	Female	Male
Lungs	No. in group:	50	50
Alveolar histiocytosis	Number examined:	50	50
Average severity:		0.2	0.1
Congestion		1	0
Average severity:		0.0	0.0
Fibrosis, focal		0	1
Average severity:		0.0	0.0
Hemorrhage		5	1
Average severity:		0.1	0.0
Inflammation, acute		1	1
Average severity:		0.0	0.0
Inflammation, mixed		0	0
Average severity:		0.0	0.0
Inflammation, granulomatous		0	0
Average severity:		0.0	0.0
Hyperplasia, alveolar epithelial, focal		7	1
Average severity:		0.2	0.0
Trachea	Number examined:	50	50
Inflammation, acute		2	0
Average severity:		0.1	0.0
Inflammation, mixed		1	0
Average severity:		0.0	0.0
Hyperplasia		0	0
Average severity:		0.0	0.0
Bronchial (TBLN)	Number examined:	48	19
Hemorrhage		1	3
Average severity:		0.0	0.4
Inflammation, mixed		0	0
Average severity:		0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animal sex:		-- A n i m a l s A f f e c t e d --	
T i s s u e s W i t h D i a g n o s e s		Dosage group:		-- F e m a l e s --	
		No. in group:		CtIs	
		Number examined:		50 50	
Cyst, follicular		0	0	22	22
Average severity:		0.0	0.0	0.0	0.0
Hyperplasia, C-cell, focal		3	4	1	6
Average severity:		0.1	0.5	0.0	0.3
Hyperplasia, follicular cell		1	0	0	0
Average severity:		0.0	0.0	0.0	0.0
Parathyroid		47	20	20	50
Hyperplasia, focal		1	0	0	0
Average severity:		0.0	0.0	0.0	0.0
Aorta		49	20	20	50
Esophagus		50	20	20	50
Larynx		50	50	50	50
Metaplasia, squamous		5	10	10	9
Average severity:		0.2	0.3	0.3	0.2
Hyperplasia		17	10	5	15
Average severity:		0.4	0.2	0.1	0.5
Inflammation, acute		2	0	1	0
Average severity:		0.0	0.0	0.0	0.0
Inflammation, mixed		28	35	23	33
Average severity:		0.9	1.0	0.6	1.0
Inflammation, chronic		8	1	6	7
Average severity:		0.2	0.0	0.2	0.2
Salivary gland		50	20	20	50
Mandibular LN		44	19	21	47
Hemorrhage		0	1	0	0
Average severity:		0.0	0.1	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animal sex:		-- Animals Affected --	
Tissues	With Diagnoses	Dosage group:	Female	Male	Sexes
		No. in group:	50	50	50
Liver	Angiectasis	Number examined:	50	28	22
	Average severity:		1	0	0
	Average severity:		0.0	0.0	0.0
	Average severity:		1	0	1
	Average severity:		0.0	0.0	0.1
	Average severity:		0	1	2
	Average severity:		0.0	0.0	0.1
	Average severity:		1	0	0
	Average severity:		0.1	0.0	0.0
	Average severity:		0	5	0
	Average severity:		0.0	0.2	0.0
	Average severity:		3	3	1
	Average severity:		0.1	0.2	0.1
	Average severity:		0	0	0
	Average severity:		0.0	0.0	0.0
	Average severity:		5	1	1
	Average severity:		0.2	0.1	0.1
	Average severity:		1	0	0
	Average severity:		0.0	0.0	0.0
	Average severity:		13	5	3
	Average severity:		0.3	0.2	0.2
	Average severity:		35	16	17
	Average severity:		1.2	0.9	1.2
	Average severity:		1	1	1
	Average severity:		0.1	0.1	0.1
Spleen	Fibrosis	Number examined:	50	22	24
	Average severity:		3	0	1
	Average severity:		0.1	0.0	0.0
	Average severity:		0	0	0
	Average severity:		0.0	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Lovellace Respiratory Research Institute  
 Rat/F344/N  
 Lesion incidence summary with average severity grades  
 Study Number: FY01013F  
 Printed: 30-Jun-04  
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Controls from group(s): 1		Animal sex: -- F e m a l e s --		A f f e c t e d --	
T i s s u e s	W i t h D i a g n o s e s	CtIs	2	3	4
Spleen	.....	50	50	50	50
Necrosis	.....Number examined:	50	22	24	50
	Average severity:	1	1	0	2
		0.0	0.2	0.0	0.1
Kidneys	.....Number examined:	50	20	21	50
Atrophy	.....	0	0	0	1
	Average severity:	0.0	0.0	0.0	0.1
Cyst	.....	1	0	0	3
	Average severity:	0.1	0.0	0.0	0.2
Degeneration, hyaline droplet	.....	0	0	0	1
	Average severity:	0.0	0.0	0.0	0.1
Dilatation	.....	0	0	0	1
	Average severity:	0.0	0.0	0.0	0.1
Infarct	.....	0	0	0	1
	Average severity:	0.0	0.0	0.0	0.1
Nephropathy, chronic	.....	42	17	15	43
	Average severity:	1.0	1.0	1.0	1.5
Pigment accumulation, tubular epithelium	.....	0	2	0	2
	Average severity:	0.0	0.3	0.0	0.1
Heart	.....Number examined:	50	20	20	50
Degeneration, myocyte	.....	3	0	0	3
	Average severity:	0.1	0.0	0.0	0.1
Fibrosis	.....	1	0	0	0
	Average severity:	0.0	0.0	0.0	0.0
Thrombus	.....	1	0	0	0
	Average severity:	0.0	0.0	0.0	0.0
Inflammation, focal, chronic	.....	24	7	8	26
	Average severity:	0.5	0.4	0.4	0.5
Stomach	.....Number examined:	50	20	20	50
Ulcer	.....	0	1	0	0
	Average severity:	0.0	0.1	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1	Animal sex:		Affected	
	Male	Female	Male	Female
Tissues With Diagnoses	Ctls	2	3	4
Stomach	No. in group:	50	50	50
Inflammation, mixed	Number examined:	50	20	50
	Average severity:	0.0	0.1	0.0
Cecum	Number examined:	49	20	49
Urinary bladder	Number examined:	50	20	19
Hemorrhage	Number examined:	1	0	0
	Average severity:	0.0	0.0	0.0
Inflammation, chronic	Average severity:	2	0	3
		0.0	0.0	0.1
Hyperplasia, papillary	Average severity:	1	0	0
		0.0	0.0	0.0
Duodenum	Number examined:	50	20	20
Inflammation, acute	Number examined:	0	1	0
	Average severity:	0.0	0.2	0.0
Jejunum	Number examined:	50	20	20
Ileum	Number examined:	50	20	19
Colon	Number examined:	50	20	20
Pancreas	Number examined:	50	18	20
Fibrosis	Number examined:	0	0	0
	Average severity:	0.0	0.0	0.0
Rectum	Number examined:	50	20	20
Metaplasia, squamous	Number examined:	0	1	0
	Average severity:	0.0	0.1	0.0
Adrenal glands	Number examined:	49	20	21
Cyst	Number examined:	0	0	1
	Average severity:	0.0	0.0	0.1
Degeneration, cytoplasmic vacuolization	Average severity:	12	1	14
		0.3	0.1	0.0
Necrosis	Average severity:	1	0	0
		0.0	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1	Animal sex: -- F e m a l e s --	A f f e c t e d
T i s s u e W i t h D i a g n o s e s	C t l s	
Adrenal glands	50	50
Thrombus	49	21
	1	0
Average severity:	0.0	0.0
	0.0	0.0
Hyperplasia, cortical, focal	2	0
	0.0	0.0
Hyperplasia, focal	1	2
	0.0	0.1
Uterus	50	31
Angiectasis	0	1
	0.0	0.1
Dilatation	0	4
	0.0	0.3
Intussusception	1	0
	0.0	0.0
Inflammation, mixed	3	0
	0.1	0.0
Inflammation, chronic	3	0
	0.1	0.0
Hyperplasia, cystic endometrial	11	4
	0.4	0.3
Mesenteric LN	50	20
Hemorrhage	1	1
	0.0	0.1
Inflammation, chronic	1	1
	0.1	0.1
Ovaries	49	23
Congestion	0	1
	0.0	0.1
Cyst, bursa	0	1
	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03



Lovellace Respiratory Research Institute  
 Rat/F344/N  
 Lesion incidence summary with average severity grades  
 Study Number: FY01013F  
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Controls from group(s): 1	-- Animals		Affected --	
	Animal sex: Dosage group: No. in group:	Female	Male	Sex
Tissues With Diagnosis	Ctls	2	3	4
Brain	50	50	50	50
Metaplasia, osseous, meninges	50	25	25	50
Average severity:	0.0	0.0	0.0	0.0
Necrosis	1	0	0	0
Average severity:	0.0	0.0	0.0	0.0
Inflammation, chronic	0	0	0	1
Average severity:	0.0	0.0	0.0	0.1
Eyes/optic nerve	50	22	24	50
Atrophy	1	1	0	2
Average severity:	0.1	0.2	0.0	0.2
Atrophy, retinal, unilateral	0	2	1	0
Average severity:	0.0	0.4	0.1	0.0
Cataract	1	3	1	2
Average severity:	0.0	0.1	0.0	0.0
Metaplasia, osseous, scleral	1	0	0	0
Average severity:	0.0	0.0	0.0	0.0
Mineralization, corneal stromal	4	0	0	4
Average severity:	0.1	0.0	0.0	0.1
Mineralization, scleral	2	2	2	4
Average severity:	0.0	0.2	0.1	0.1
Neovascularization, corneal	1	0	0	2
Average severity:	0.0	0.0	0.0	0.0
Bone, femur	50	20	19	50
New bone formation, endosteal	0	0	0	1
Average severity:	0.0	0.0	0.0	0.0
Spinal cord	50	20	19	50
Degeneration, white matter	1	0	0	1
Average severity:	0.0	0.0	0.0	0.0
Hemorrhage	1	0	1	0
Average severity:	0.0	0.0	0.1	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animal sex:		-- Animals Affected --	
T i s s u e s	W i t h D i a g n o s e s	Dosage group:	--- Females ---	CtIs	2 3 4
Spinal cord	.....	No. in group:	50	50	50
Necrosis, neuronal	.....	Number examined:	20	19	50
		Average severity:	0.0	0.0	0.0
Nose/Turbinates 1	.....	Number examined:	50	49	50
Degeneration, hyaline - respiratory epithelium	.....	Average severity:	0.1	0.2	0.1
Inflammation, mixed	.....	Average severity:	0.3	0.2	0.1
Inflammation - nasolacrimal duct	.....	Average severity:	0.9	0.7	1.3
Inflammation - respiratory epithelium	.....	Average severity:	0.1	0.0	0.0
Hyperplasia - respiratory epithelium	.....	Average severity:	0.0	0.0	0.1
Nose/Turbinates 2	.....	Number examined:	50	50	50
Degeneration, hyaline - olfactory epithelium	.....	Average severity:	0.1	0.2	0.3
Degeneration, hyaline - respiratory epithelium	.....	Average severity:	0.0	0.0	0.2
Metaplasia, secretory - olfactory epithelium	.....	Average severity:	0.1	0.0	0.0
Metaplasia, squamous - olfactory epithelium	.....	Average severity:	0.0	0.0	0.0
Inflammation, mixed	.....	Average severity:	0.2	0.1	0.1
Hyperplasia - respiratory epithelium	.....	Average severity:	0.0	0.1	0.1
Nose/Turbinates 3	.....	Number examined:	50	50	50
Degeneration - olfactory epithelium	.....	Average severity:	0.0	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Lovellace Respiratory Research Institute  
 Rat/F344/N  
 Lesion incidence summary with average severity grades  
 Study Number: FY01013F  
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Controls from group(s): 1	Animal sex: Dosage group: No. in group:	-- Animals Affected --	
		Female	Male
Tissue With Diagnosis	CtIs	2	4
Nose/Turbinate 3	50	50	50
Degeneration, hyaline - olfactory epithelium	4	2	10
Average severity:	0.1	0.1	0.4
Degeneration - respiratory epithelium	0	2	0
Average severity:	0.0	0.1	0.0
Inflammation, mixed	1	3	1
Average severity:	0.1	0.1	0.0
Nose/Turbinate 4	50	50	50
Degeneration - olfactory epithelium	0	1	0
Average severity:	0.0	0.0	0.0
Degeneration, hyaline - olfactory epithelium	3	0	0
Average severity:	0.1	0.0	0.0
Inflammation, mixed	1	1	0
Average severity:	0.0	0.0	0.0
Cervix	2	5	3
Number examined:	1	0	3
Clitoral gland	3	1	3
Number examined:	1	0	0
Lymph node other	3	1	3
Hemorrhage	1	0	0
Average severity:	0.3	0.0	0.0
Infiltration, histiocytic	1	0	0
Average severity:	0.7	0.0	0.0
Popliteal LN	1	1	0
Iliac LN	2	2	2
Pancreatic LN	2	1	2
Mediastinal LN	50	20	20
Hemorrhage	4	1	1
Average severity:	0.2	0.1	0.1
Infiltration, histiocytic	0	0	0
Average severity:	0.0	0.0	0.0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		Animals		Affected	
		-- Females --			
Tissue	With Diagnosis	Ctls	2	3	4
Mediastinal LN	.....	50	50	50	50
Pigmentation	.....	50	20	20	47
	Number examined:	0	0	0	1
	Average severity:	0.0	0.0	0.0	0.1
Pituitary gland	.....	50	32	34	50
Angiectasis	.....	9	1	3	6
	Average severity:	0.4	0.1	0.2	0.3
Cyst	.....	24	9	10	12
	Average severity:	0.9	0.6	0.6	0.4
Degeneration	.....	1	0	0	0
	Average severity:	0.0	0.0	0.0	0.0
Hemorrhage	.....	5	0	0	10
	Average severity:	0.2	0.0	0.0	0.5
Necrosis	.....	0	0	0	1
	Average severity:	0.0	0.0	0.0	0.1
Hyperplasia, focal	.....	8	3	8	4
	Average severity:	0.4	0.2	0.5	0.2
Tail	.....	0	0	1	1
Inflammation, acute	.....	0	0	1	0
	Average severity:	0.0	0.0	2.0	0.0
Inflammation, mixed	.....	0	0	0	1
	Average severity:	0.0	0.0	0.0	3.0
Hyperplasia/hyperkeratosis	.....	0	0	1	1
	Average severity:	0.0	0.0	3.0	4.0
Bone, rib	.....	0	0	0	1
Mesentery	.....	1	0	0	1
Splenic tissue, "accessory"	.....	1	0	0	0
	Average severity:	1.0	0.0	0.0	0.0
Bone, vertebrae	.....	1	0	0	0

Nonneoplastic Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

Controls from group(s): 1		-- Animals		Affected --	
Animal sex:	Animal sex:	--- Females ---			
Dosage group:	Dosage group:	CtIs	2	3	4
No. in group:	No. in group:	50	50	50	50
Number examined:	Number examined:	1	0	0	0
Tissues With Diagnosis					
Zymbal's gland					
Mediastinum		1	0	0	0
Bone, other		0	0	1	0
Fracture		0	0	1	0
	Average severity:	0.0	0.0	1.0	0.0
Harderian gland		0	0	1	0
Pigment		0	0	1	0
	Average severity:	0.0	0.0	2.0	0.0
Vagina		0	1	0	0
Tiss.not specifi		0	0	0	0

Nonneoplastic Graded Diagnoses; Phases: All; Date of death range: 28-Aug-01 To 06-Jun-03

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

N-6 Raw Data

Raw Data Listing for Microscopic Tissue Evaluations  
Study Number: FY01013F

Lovellace Respiratory  
Research Institute  
Rat/F344/N

Group	Sex	Dosage	Animal >	6832E452	6832E453	6832E454	6832E455	6832E456	6832E457	6832E458	6832E459	6832E460	6832E461	6832E462	6832E463	6832E464	
1	F	0 g/m3	Animal >	6832E451	6832E452	6832E453	6832E454	6832E455	6832E456	6832E457	6832E458	6832E459	6832E460	6832E461	6832E462	6832E463	6832E464
			Death code >	FS	FS	U2	U1	U2	FS	U2	FS	U2	FS	FS	FS	FS	FS
			Tissue/diagnosis														
			Lungs (12)														
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >														
			40-Alveolar histiocytosis					1					1				
			30-Congestion														
			71-Fibrosis, focal														
			182-Hemorrhage														
			177-Inflammation, acute														
			72-Inflammation, mixed														
			236-Inflammation, granulomatous														
			10-Hyperplasia, alv. epi. focal									2					
			214-N-Carcinoma, metastatic														
			11-N-Leukemia, monoc - cap invol				2					2=					2
			74-N-Leukemia, monoc - inv invol				2=										
			204-N-Sarcoma, histiocytic														
			Trachea (4)														
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >														
			22-Inflammation, acute														
			75-Inflammation, mixed														
			76-Hyperplasia														
			238-N-Leukemia, monoc														
			Bronchial (TBLN) (3)														
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >														
			21-Hemorrhage														
			297-Inflammation, mixed														
			62-N-Leukemia, monoc				1=					1=					
			Thyroid glands (8)														
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >														
			79-Cyst, follicular														
			77-Hyperplasia, C-cell, focal														
			81-Hyperplasia, follicular cell										3				
			35-B-Adenoma, C-cell														
			78-B-Adenoma, follicular cell														
			174-M-Carcinoma, C-cell														
			80-M-Carcinoma, follicular cell				1=										
			178-M-Leukemia, monoc														
			Parathyroid (2)														
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >														
			241-Hyperplasia, focal														
			296-B-Adenoma														
			Aorta (1)														
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >														
			83-N-Leukemia, monoc - inv invol														

Group Sex Dosage	Animal >	6832E452	6832E453	6832E454	6832E455	6832E456	6832E457	6832E458	6832E459	6832E460	6832E461	6832E462	6832E463	6832E464	
1 F 0 g/m3	Animal >	6832E451	6832E452	6832E453	6832E454	6832E455	6832E456	6832E457	6832E458	6832E459	6832E460	6832E461	6832E462	6832E463	6832E464
Tissue/diagnosis	Death code >	FS	FS	U2	U1	U2	FS	U2	FS	FS	FS	FS	FS	FS	FS
Esophagus	Status >	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
12-Metaplasia, squamous	s	-	-	-	-	-	-	2	-	-	-	-	-	-	-
1-Hyperplasia	s	1	2	1	-	1	-	-	-	-	1	-	-	2	-
23-Inflammation, acute	s	-	-	-	-	-	-	-	1	1	-	-	-	-	-
42-Inflammation, mixed	s	2	2	1	-	1	-	2	2	-	2	2	-	2	-
53-Inflammation, chronic	s	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Salivary gland (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43-M-Leukemia, monuc	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mandibular LN (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	1
44-N-Leukemia, monuc	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liver (15)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45-Angiectasis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
158-Congestion	s	-	2=	-	-	-	-	-	-	-	-	-	-	-	-
90-Fatty Change	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150-Foci cell alter, basophilic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92-Hdn	p	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Necrosis	s	-	1	-	-	-	-	-	-	-	-	-	-	-	-
230-Thrombus	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13-Vacuoliz cyto	s	-	1	-	-	-	-	3	-	-	-	-	-	3	-
24-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54-Inflammation, chronic	s	-	-	-	-	-	-	-	1	-	-	-	-	-	-
46-Hyperplasia, biliary	s	1	-	2	1	2	2	-	1	2	-	-	2	-	-
47-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91-B-Adenoma, hepatocellular	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
205-M-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-M-Leukemia, monuc	s	-	1	1=	2=	-	1	2=	-	2	-	2=	2	2=	-
Spleen (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
96-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
226-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
97-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-M-Leukemia, monuc	s	-	-	-	-	-	1=	2=	-	2=	-	1	2=	2=	-
298-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6832E452	6832E454	6832E456	6832E458	6832E460	6832E462	6832E464
1 F 0 g/m3	Animal >	6832E451	6832E453	6832E455	6832E457	6832E459	6832E461	6832E463
Tissue/diagnosis	Death code >	FS	U2	U2	FS	U2	FS	FS
Kidneys (9)	Status >	142	142	142	142	142	142	142
211-Atrophy	Operator >	-	-	-	-	-	-	-
149-Cyst	s	-	-	-	-	-	-	-
209-Degen, hyaline droplet	s	-	-	-	-	-	-	-
210-Dilatation	s	-	-	-	-	-	-	-
228-Infarct	s	-	-	-	-	-	-	-
16-Nephropathy, chronic	s	1	1	1	1	2	1	1
6-Pigment accum, tub epi	s	-	-	-	-	-	-	-
98-M-Leukemia, monoc	s	-	-	-	-	-	-	-
299-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
Heart (5)	Status >	142	142	142	142	142	142	142
100-Degen, myocyte	Operator >	-	-	-	-	-	-	-
101-Fibrosis	s	2	-	-	-	-	-	-
175-Thrombus	s	-	-	-	-	-	-	1=
36-Inflammation, focal, chronic	s	1	-	2	-	1	1	1
48-M-Leukemia, monoc	s	-	1	-	-	1	-	-
Stomach (4)	Status >	142	142	142	142	142	142	142
268-Ulcer	Operator >	-	-	-	-	-	-	-
103-Inflammation, mixed	s	-	-	-	-	-	-	-
217-M-Carcinoma, metastatic	s	-	-	-	-	-	-	-
220-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Cecum (1)	Status >	142	142	142	142	142	142	142
104-N-Leukemia, monoc	Operator >	-	-	-	-	-	-	-
Urinary bladder (4)	Status >	142	142	142	142	142	142	142
186-Hemorrhage	Operator >	-	-	-	-	-	-	-
56-Inflammation, chronic	s	-	-	1	-	-	-	-
166-Hyperplasia, papillary	s	-	-	2	-	-	-	-
106-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Duodenum (1)	Status >	142	142	142	142	142	142	142
275-Inflammation, acute	Operator >	-	-	-	-	-	-	-
Jejunum	s	-	-	-	-	-	-	-
	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142

Raw Data Listing for Microscopic Tissue Evaluations  
Study Number: FY01013F

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	6832E452	6832E454	6832E456	6832E458	6832E460	6832E462	6832E464
1 F 0 g/m3	6832E451	6832E453	6832E455	6832E457	6832E461	6832E463	6832E465
Tissue/diagnosis	FS	U2	U2	FS	FS	FS	FS
Death code	>	>	>	>	>	>	>
Animal	>	>	>	>	>	>	>
Animal	>	>	>	>	>	>	>
Status	>	>	>	>	>	>	>
Operator	>	>	>	>	>	>	>
Ileum (1)	142	142	142	142	142	142	142
181-N-Leukemia, monuc	-	-	-	-	-	-	-
Colon	U	U	U	U	U	U	U
Operator	>	>	>	>	>	>	>
Pancreas (2)	142	142	142	142	142	142	142
Operator	>	>	>	>	>	>	>
212-Fibrosis	-	-	-	-	-	-	-
110-M-Leukemia, monuc	-	-	-	-	-	-	-
Rectum (1)	142	142	142	142	142	142	142
Operator	>	>	>	>	>	>	>
276-Metaplasia, squamous	-	-	-	-	-	-	-
Adrenal glands (9)	142	142	142	142	142	142	142
Operator	>	>	>	>	>	>	>
161-Cyst	-	-	-	-	-	-	-
113-Degen, cytopl vacuol	-	-	-	-	-	-	-
170-Necrosis	-	-	-	-	-	-	-
118-Thrombus	-	-	-	-	-	-	-
117-Hyperplasia, cortical, focal	-	-	-	-	-	-	-
64-Hyperplasia, focal	-	-	-	-	-	-	-
116-B-Pheochrom, bgn	-	-	-	-	-	-	-
216-M-Carcinoma, metastatic	-	-	-	-	-	-	-
112-M-Leukemia, monuc	-	-	-	-	-	-	-
Uterus (11)	142	142	142	142	142	142	142
Status	>	>	>	>	>	>	>
Operator	>	>	>	>	>	>	>
277-Angiectasis	-	-	-	-	-	-	-
7-Dilatation	-	-	-	-	-	-	-
167-Intussusception	-	-	-	-	-	-	-
162-Inflammation, mixed	-	-	-	-	-	-	-
49-Inflammation, chronic	-	-	-	-	-	-	-
20-Hyperplasia, cystic endom	-	-	-	-	-	-	-
286-B-Adenoma, endometrial	-	-	-	-	-	-	-
9-B-Polyp, endometrial stromal	-	-	-	-	-	-	-
213-M-Adenocarcinoma, endometr	-	-	-	-	-	-	-
279-M-Leiomyosar	-	-	-	-	-	-	-
165-M-Leukemia, monuc	-	-	-	-	-	-	-
Mesenteric LN (4)	142	142	142	142	142	142	142
Status	>	>	>	>	>	>	>
Operator	>	>	>	>	>	>	>
120-Hemorrhage	-	-	-	-	-	-	-
173-Inflammation, chronic	-	-	-	-	-	-	-
206-N-Sarcoma, histiocytic	-	-	-	-	-	-	-
32-N-Leukemia, monuc	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6832E452	6832E454	6832E456	6832E458	6832E460	6832E462	6832E464
1 F 0 g/m3	Animal >	6832E451	6832E453	6832E455	6832E457	6832E459	6832E461	6832E463
Tissue/diagnosis	Death code >	FS	U2	U2	FS	U2	FS	FS
Ovaries (9)	Status >		*H					
Operator >	Operator >	142	142	142	142	142	142	142
284-Congestion	s	-	-	-	-	-	-	-
154-Cyst, bursa	p	-	-	-	-	-	-	-
234-Cyst, epithelial	p	-	-	-	-	-	-	-
293-Cyst, follicular	p	-	-	-	-	-	-	-
291-Cyst, rete ovarii	s	-	-	-	-	-	-	-
25-Hemorrhage	s	-	-	-	-	-	-	-
290-Necrosis, mesenteric fat	s	-	-	-	-	-	-	-
207-N-Sarcoma, histiocytic		-	-	-	-	-	-	-
163-M-Leukemia, monoc	1	-	-	-	-	-	-	-
Sciatic nerve	Status >	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142
Muscle, skeletal (1)	Status >							
Operator >	Operator >	142	142	142	142	142	142	142
208-N-Sarcoma, histiocytic		-	-	-	-	-	-	-
Mammary gland (6)	Status >							*
Operator >	Operator >	142	142	142	142	142	142	142
159-Ectasia	s	-	-	-	-	-	-	-
190-Hyperplasia, lobular	s	-	-	-	-	-	-	-
156-B-Fibroadenoma		-	-	-	-	-	-	-
70-B-Fibroma		-	-	-	-	1=	-	-
235-M-Adenocarcinoma		-	-	-	-	-	-	-
224-M-AdenoCA arising in fibroad		-	-	-	-	-	-	-
Skin (3)	Status >							
Operator >	Operator >	142	142	142	142	142	142	142
252-Cyst, epith inc	p	-	-	-	-	-	-	-
122-Fibrosis	s	-	-	-	-	-	-	-
253-Inflammation, mixed	s	-	-	-	-	-	-	-
Brain (6)	Status >							
Operator >	Operator >	142	142	142	142	142	142	142
26-Compression	s	-	-	-	-	-	-	-
192-Hemorrhage	s	-	-	-	-	-	-	-
155-Metaplasia, osseous, meninge	s	-	-	-	-	-	-	-
33-Necrosis	s	-	-	-	-	-	-	-
194-Inflammation, chronic	s	-	-	-	-	-	-	-
256-M-Astrocytoma, malignant		-	-	-	-	-	-	-
Eyes/optic nerve (7)	Status >							
Operator >	Operator >	142	142	142	142	142	142	142
127-Atrophy	s	-	-	-	-	-	-	-
129-Atrophy, retinal, unilat	s	-	-	-	-	-	-	-
130-Cataract	p	-	-	-	-	-	-	-
133-Metaplasia, osseous, sclera	s	-	-	-	-	-	-	1

Group Sex Dosage	Animal >	6832E452	6832E453	6832E454	6832E455	6832E456	6832E457	6832E458	6832E459	6832E460	6832E461	6832E462	6832E463	6832E464
1 F 0 g/m3	Animal >	FS	U2	U1	U2	FS	U2	FS	U2	FS	FS	FS	FS	FS
Tissue/diagnosis	Death code >													
Eyes/optic nerve (7)	Status >													
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142
58-Mineralization, corneal str s	Operator >								1					
126-Mineralization, scleral s	Operator >													
131-Neovascularization, corneal s	Operator >													
Bone, femur (1)	Status >													
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142
179-New bone, endosteal s	Operator >													
Spinal cord (3)	Status >													
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142
27-Degen, white matter s	Operator >													
197-Hemorrhage s	Operator >													
231-Necrosis, neuronal s	Operator >													
Nose/Turbinates 1 (5)	Status >													
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142
260-Degeneration,hyal-resp epith s	Operator >													
134-Inflammation, mixed s	Operator >						2							3
34-Inflammation-nasolac duct s	Operator >					3	2							2
136-Inflammation-resp epith s	Operator >													
199-Hyperplasia-resp epith s	Operator >													
Nose/Turbinates 2 (6)	Status >													
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142
18-Degeneration,hyaline-olf epith s	Operator >													
261-Degeneration,hyal-resp epith s	Operator >													1
176-Metaplasia, sec-olfact epith s	Operator >													4=
270-Metaplasia, squ-olfact epith s	Operator >													
138-Inflammation, mixed s	Operator >													3
227-Hyperplasia-resp epith s	Operator >													
Nose/Turbinates 3 (4)	Status >													
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142
295-Degeneration-olfact epith s	Operator >													
19-Degeneration,hyaline-olf epith s	Operator >													1
232-Degeneration-resp epith s	Operator >													
142-Inflammation, mixed s	Operator >													
Nose/Turbinates 4 (3)	Status >													
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142
285-Degeneration-olfact epith s	Operator >													
164-Degeneration,hyaline-olf epith s	Operator >													
144-Inflammation, mixed s	Operator >													

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1 F 0 g/m3	Animal >	6832E451	6832E452	6832E453	6832E454	6832E455	6832E456	6832E457	6832E458	6832E459	6832E460	6832E461	6832E462	6832E463	6832E464
Tissue/diagnosis	Death code >	FS	FS	U2	U1	U2	FS	U2	FS	FS	FS	FS	FS	FS	FS
Cervix (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >			142											
168-B-Polyp, endometrial stromal															
289-M-Leiomyosarcoma															
269-N-Adenocarcinoma, endometr															
Clitoral gland (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >														
294-B-Adenoma															
61-M-Carcinoma, squamous cell															
271-N-Adenocarcinoma															
Lymph node other (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >														
60-Hemorrhage															
59-Infiltration, histiocytic s															
65-N-Leukemia, monuc															
Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >														
66-N-Leukemia, monuc															
Iliac LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >														
67-N-Leukemia, monuc															
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >														
68-N-Leukemia, monuc															
Mediastinal LN (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >														
29-Hemorrhage	s														
3-Infiltration, histiocytic s															
2-Pigmentation	s														
273-B-Thymoma															
219-M-Carcinoma, metastatic															
265-N-Sarcoma, histiocytic															
41-N-Leukemia, monuc															
Pituitary gland (10)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >														
160-Angiectasis	s														
37-Cyst	s														
38-Degen	s														
148-Hemorrhage	s														
203-Necrosis	s														
57-Hyperplasia, focal	s														
31-B-Adenoma, pars distalis															

Group Sex Dosage	Animal >	6832E452	6832E453	6832E454	6832E455	6832E456	6832E457	6832E458	6832E459	6832E460	6832E461	6832E462	6832E463	6832E464	6832E465
1 F 0 g/m3	Animal >	FS	U2	U1	U2	FS	U2	FS	U2	FS	FS	FS	FS	FS	FS
Tissue/diagnosis	Death code >														
Pituitary gland (10)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288-M-Carcinoma		-	-	-	-	-	-	-	-	-	-	-	-	-	-
146-M-Leukemia, monoc		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >														
152-Inflammation, mixed	s														
153-Hyperplasia/hyperkeratosis	s														
Bone, rib (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >														
Mesentery (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >														
218-M-Carcinoma, metastatic	p														
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >														
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >														
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >														
Bone, other (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
272-Fracture	Operator >														
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
278-Pigment	Operator >														
Vagina (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >														

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Group	Sex	Dosage	Animal	6832E452	6832E454	6832E456	6832E458	6832E460	6832E462	6832E464
1	F	0 g/m3	Animal >	6832E451	6832E453	6832E455	6832E457	6832E459	6832E461	6832E463
			Death code >	FS	U2	U2	U2	U2	FS	FS
			Tissue/diagnosis							
			Tiss.not specifi	M	M	M	M	M	M	M
			Status >							
			Operator >							

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Group	Sex	Dosage	Animal >	6832E467	6832E469	6832E470	6832E471	6832E473	6832E474	6832E475	6832E477	6832E479
1	F	0 g/m3	Animal >	6832E466	6832E468	6832E470	6832E471	6832E472	6832E474	6832E476	6832E478	6832E480
			Death code >	U2	U2	U2	U2	FS	U2	FS	U1	FS
			Tissue/diagnosis									
Lungs (12)												
			Status >	142	142	142	142	142	142	142	142	142
			Operator >									a
40-Alveolar histiocytosis			s									142
30-Congestion			s					2=				142
71-Fibrosis, focal			s									142
182-Hemorrhage			s	2=								142
177-Inflammation, acute			s									142
72-Inflammation, mixed			s									142
236-Inflammation, granulomatous			s									142
10-Hyperplasia, alv. epi. focal			s		1					3		142
214-N-Carcinoma, metastatic			s									142
11-N-Leukemia,monoc - cap invol			s	2			2=			2=		142
74-N-Leukemia,monoc - inv invol			s			2=						142
204-N-Sarcoma, histiocytic			s									142
Trachea (4)												
			Status >	142	142	142	142	142	142	142	142	142
			Operator >									142
22-Inflammation, acute			s									142
75-Inflammation, mixed			s	2				2				142
76-Hyperplasia			s									142
238-N-Leukemia, monoc			s									142
Bronchial (TBLN) (3)												
			Status >	142	142	142	142	142	142	142	142	142
			Operator >									142
21-Hemorrhage			s									142
297-Inflammation, mixed			s									142
62-N-Leukemia, monoc			s			1=						142
Thyroid glands (8)												
			Status >	142	142	142	142	142	142	142	142	142
			Operator >									a
79-Cyst, follicular			p									142
77-Hyperplasia, C-cell, focal			s									142
81-Hyperplasia, follicular cell			s									142
35-B-Adenoma, C-cell			s									2=
78-B-Adenoma, follicular cell			s									142
174-M-Carcinoma, C-cell			s									142
80-M-Carcinoma, follicular cell			s									142
178-M-Leukemia, monoc			s									142
Parathyroid (2)												
			Status >	m	mH	mH	mH	mH	mH	*H	*H	mH
			Operator >	142	142	142	142	142	142	142	142	142
241-Hyperplasia, focal			s									142
296-B-Adenoma			s									142
Aorta (1)												
			Status >	142	142	142	142	142	142	142	142	142
			Operator >									142
83-N-Leukemia,monoc - inv invol			s									142

Group Sex Dosage	6832E466	6832E467	6832E469	6832E470	6832E471	6832E472	6832E473	6832E474	6832E475	6832E476	6832E477	6832E479
1 F 0 g/m3	U2	FS	U2	U2	U2	U2	FS	U2	FS	U2	U1	FS
Tissue/diagnosis	U2	FS	U2	U2	U2	U2	FS	U2	FS	U2	U1	FS
Animal >	6832E467	6832E467	6832E469	6832E470	6832E471	6832E472	6832E473	6832E474	6832E475	6832E476	6832E477	6832E479
Animal >	6832E466	6832E467	6832E468	6832E470	6832E471	6832E472	6832E473	6832E474	6832E475	6832E476	6832E477	6832E479
Death code >	U2	FS	U2	U2	U2	U2	FS	U2	FS	U2	U1	FS
Status >	U	U	U	U	U	U	U	U	U	U	U	U
Operator >	142	142	142	142	142	142	142	142	142	142	142	142
Larynx (5)	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142	142	142	142	142	142
12-Metaplasia, squamous	-	-	-	-	-	1	-	-	-	-	-	-
1-Hyperplasia	-	-	-	1	1	-	1	-	-	2	-	2
23-Inflammation, acute	-	-	-	-	-	-	-	-	-	-	-	-
42-Inflammation, mixed	-	1	-	1	2	-	2	-	-	2	1	2
53-Inflammation, chronic	-	-	-	-	-	1	-	-	1	-	-	-
Salivary gland (1)	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142	142	142	142	142	142
43-M-Leukemia, monuc	-	-	-	-	-	-	-	-	-	-	-	-
Mandibular LN (2)	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142	142	142	142	142	142
89-Hemorrhage	-	-	-	-	-	-	-	-	-	-	-	-
44-N-Leukemia, monuc	-	-	-	1	1	-	-	-	-	1	1	-
Liver (15)	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142	142	142	142	142	142
45-Angiectasis	-	-	-	-	-	-	-	-	-	-	-	-
158-Congestion	-	-	-	-	-	-	-	-	-	-	-	-
90-Fatty Change	-	-	-	-	-	-	-	-	-	-	-	-
150-Foci cell alter, basophilic	-	-	-	-	-	-	-	-	-	-	-	3
92-Hdn	-	-	-	-	-	-	-	-	-	-	-	-
4-Necrosis	-	-	-	-	-	-	-	-	-	-	-	3=
230-Thrombus	-	-	-	-	-	-	-	-	-	-	-	-
13-Vacuoliz cyto	-	-	-	-	-	-	-	-	-	-	3	-
24-Inflammation, acute	-	-	-	-	-	-	2	-	-	-	-	-
54-Inflammation, chronic	-	1	2	-	-	1	-	-	1	-	-	-
46-Hyperplasia, biliary	1	2	2	2	2	2	-	-	2	2	-	1
47-Hyperplasia, hepato, regen	-	-	-	-	-	-	-	-	-	-	-	-
91-B-Adenoma, hepatocellular	-	-	-	-	-	-	-	-	-	-	-	-
205-M-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-	-
14-M-Leukemia, monuc	2	-	1	2=	2	-	-	2=	-	2=	2=	2
Spleen (5)	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142	142	142	142	142	142
96-Fibrosis	2=	-	-	-	-	-	-	-	-	-	-	1=
226-Hemorrhage	-	-	-	-	-	-	-	-	-	-	-	-
97-Necrosis	-	-	-	-	-	-	-	-	-	-	-	-
15-M-Leukemia, monuc	2=	-	1	2=	2=	-	-	2=	-	2=	2=	2=
298-N-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal	6832E467	6832E469	6832E471	6832E473	6832E475	6832E477	6832E479
1	F	0 g/m3	Animal >	6832E466	6832E468	6832E470	6832E472	6832E474	6832E476	6832E478
		Tissue/diagnosis	Death code >	U2	U2	U2	FS	U2	FS	U2
Kidneys (9)										
			Status >	142	142	142	142	142	142	142
		Operator >		-	-	-	-	-	-	-
211-Atrophy			S	-	-	-	-	-	-	-
149-Cyst			S	-	-	-	3=	-	-	-
209-Degen, hyaline droplet			S	-	-	-	-	-	-	-
210-Dilatation			S	-	-	-	-	-	-	-
228-Infarct			S	-	-	-	-	-	-	-
16-Nephropathy, chronic			S	1	1	2	1	1	1	1
6-Pigment accum, tub epi			S	-	-	-	-	-	-	-
98-M-Leukemia, monoc				-	-	-	-	-	-	-
299-N-Sarcoma, histiocytic				-	-	-	-	-	-	-
Heart (5)										
			Status >	142	142	142	142	142	142	142
		Operator >		-	-	-	1	-	-	-
100-Degen, myocyte			S	-	-	-	-	-	-	-
101-Fibrosis			S	-	-	-	-	-	-	-
175-Thrombus			S	-	-	-	-	-	-	-
36-Inflammation, focal, chronic			S	-	1	1	-	-	1	-
48-M-Leukemia, monoc				-	-	-	-	-	-	-
Stomach (4)										
			Status >	142	142	142	142	142	142	142
		Operator >		-	-	-	-	-	-	-
268-Ulcer			S	-	-	-	-	-	-	-
103-Inflammation, mixed			S	-	-	-	-	-	-	-
217-M-Carcinoma, metastatic				-	-	-	-	-	-	-
220-M-Leukemia, monoc				-	-	-	-	-	-	-
Cecum (1)										
			Status >	142	142	142	142	142	142	142
		Operator >		-	-	-	-	-	-	-
104-N-Leukemia, monoc				-	-	-	-	-	-	-
Urinary bladder (4)										
			Status >	142	142	142	142	142	142	142
		Operator >		-	-	-	-	-	-	-
186-Hemorrhage			S	-	-	-	-	-	-	-
56-Inflammation, chronic			S	-	-	-	-	-	-	-
166-Hyperplasia, papillary			S	-	-	-	-	-	-	-
106-M-Leukemia, monoc				-	-	-	-	-	-	-
Duodenum (1)										
			Status >	142	142	142	142	142	142	142
		Operator >		-	-	-	-	-	-	-
275-Inflammation, acute			S	-	-	-	-	-	-	-
Jejunum										
			Status >	U	U	U	U	U	U	U
		Operator >		142	142	142	142	142	142	142
				U	U	U	U	U	U	U
				142	142	142	142	142	142	142

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Group Sex Dosage	6832E467	6832E469	6832E471	6832E473	6832E475	6832E477	6832E479
1 F 0 g/m3	6832E466	6832E468	6832E470	6832E472	6832E474	6832E476	6832E478
Tissue/diagnosis	U2 FS	U2 U2	U2 U2	FS U1	U2 FS	U2 U1	FS U2
Ileum (1)							
181-N-Leukemia, monuc	142	142	142	142	142	142	142
Colon							
Pancreas (2)							
212-Fibrosis							
110-M-Leukemia, monuc	142	142	142	142	142	142	142
Rectum (1)							
276-Metaplasia, squamous	H			a			
Adrenal glands (9)	142	142	142	142	142	142	142
161-Cyst							
113-Degen, cytopl vacuol							
170-Necrosis							
118-Thrombus							
117-Hyperplasia, cortical, focal							
64-Hyperplasia, focal							
116-B-Pheochrom, bgn							
216-M-Carcinoma, metastatic							
112-M-Leukemia, monuc							
Uterus (11)							
277-Angiectasis	142	142	142	142	142	142	142
7-Dilatation							
167-Intussusception							
162-Inflammation, mixed							
49-Inflammation, chronic	1						
20-Hyperplasia, cystic endom		2					1
286-B-Adenoma, endometrial							
9-B-Polyp, endometrial stromal							
213-M-Adenocarcinoma, endometr							
279-M-Leiomyosar							
165-M-Leukemia, monuc			1				
Mesenteric LN (4)							
120-Hemorrhage	142	142	142	142	142	142	142
173-Inflammation, chronic				2			
206-N-Sarcoma, histiocytic							
32-N-Leukemia, monuc							

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Group	Sex	Dosage	Animal >	6832E467	6832E469	6832E471	6832E473	6832E475	6832E477	6832E479
1	F	0 g/m3	Animal >	6832E466	6832E468	6832E470	6832E472	6832E474	6832E476	6832E478
Tissue/diagnosis			Death code >	U2 FS	U2	U2	FS U1	U2	U1	FS U2

Ovaries (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >													
284-Congestion	s												
154-Cyst, bursa	p												
234-Cyst, epithelial	p												
293-Cyst, follicular	p												
291-Cyst, rete ovarii	s												
25-Hemorrhage	s						2=						
290-Necrosis, mesenteric fat	s												
207-N-Sarcoma, histiocytic													
163-M-Leukemia, monoc													
Sciatic nerve	Status >	U	U	U	U	U	U	U	U	U	U	U	U
Operator >		142	142	142	142	142	142	142	142	142	142	142	142
Muscle, skeletal (1)	Status >												
Operator >		142	142	142	142	142	142	142	142	142	142	142	142
208-N-Sarcoma, histiocytic													
Mammary gland (6)	Status >												
Operator >		142	142	142	142	142	142	142	142	142	142	142	142
159-Ectasia	s												
190-Hyperplasia, lobular	s												
156-B-Fibroadenoma													
70-B-Fibroma													
235-M-Adenocarcinoma													
224-M-AdenoCA arising in fibroad													
Skin (3)	Status >												
Operator >		142	142	142	142	142	142	142	142	142	142	142	142
252-Cyst, epith inc	p												
122-Fibrosis	s												
253-Inflammation, mixed	s												
Brain (6)	Status >												
Operator >		142	142	142	142	142	142	142	142	142	142	142	142
26-Compression	s												
192-Hemorrhage	s												
155-Metaplasia, osseous, meninge	s												
33-Necrosis	s												
194-Inflammation, chronic	s												
256-M-Astrocytoma, malignant													
Eyes/optic nerve (7)	Status >												
Operator >		142	142	142	142	142	142	142	142	142	142	142	142
127-Atrophy	s												
129-Atrophy, retinal, unilat	s												
130-Cataract	p												
133-Metaplasia, osseous, sclera	s												

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Group Sex Dosage	6832E467	6832E469	6832E471	6832E473	6832E475	6832E477	6832E479
1 F 0 g/m3	6832E466	6832E468	6832E470	6832E472	6832E474	6832E476	6832E478
Tissue/diagnosis	U2 FS	U2	U2	FS U1	FS U2	U1	FS U2
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
58-Mineralization, corneal str s					2		
126-Mineralization, scleral s							1
131-Neovascularization, corneal s							
Bone, femur (1)	Status >	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
179-New bone, endosteal s							
Spinal cord (3)	Status >	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
27-Degen, white matter s				2			
197-Hemorrhage s							
231-Necrosis, neuronal s							
Nose/Turbinates 1 (5)	Status >	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
260-Degeneration,hyal-resp epith s							a
134-Inflammation, mixed s				3		4	
34-Inflammation-nasolac duct s			3	3	2	2	2
136-Inflammation-resp epith s							
199-Hyperplasia-resp epith s							
Nose/Turbinates 2 (6)	Status >	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
18-Degeneration,hyaline-olf epi s		1					
261-Degeneration,hyal-resp epith s							
176-Metaplasia, sec-olfact epith s							
270-Metaplasia, squ-olfact epith s							
138-Inflammation, mixed s						4	
227-Hyperplasia-resp epith s							
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
295-Degeneration-olfact epith s							
19-Degeneration,hyaline-olf epi s		1					
232-Degeneration-resp epith s							
142-Inflammation, mixed s						3	
Nose/Turbinates 4 (3)	Status >	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
285-Degeneration-olfact epith s							
164-Degeneration,hyaline-olf epi s				1			
144-Inflammation, mixed s							2

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Group Sex Dosage	Animal >	6832E467	6832E469	6832E471	6832E473	6832E475	6832E477	6832E479
1 F 0 g/m3	Animal >	6832E466	6832E468	6832E470	6832E472	6832E474	6832E476	6832E478
Tissue/diagnosis	Death code >	U2 FS	U2 U2	U2 U2	FS U1	U2 FS	U2 U1	FS U2
Cervix (3)	Status >	M	M	M	M	M	M	M
Operator >	Operator >				142			
168-B-Polyp, endometrial stromal								
289-M-Leiomyosarcoma								
269-N-Adenocarcinoma, endometr								
Clitoral gland (3)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
294-B-Adenoma								
61-M-Carcinoma, squamous cell								
271-N-Adenocarcinoma								
Lymph node other (3)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
60-Hemorrhage								
59-Infiltration, histiocytic s								
65-N-Leukemia, monuc								
Popliteal LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
66-N-Leukemia, monuc								
Iliac LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
67-N-Leukemia, monuc								
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
68-N-Leukemia, monuc								
Mediastinal LN (7)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	2=			3=			
29-Hemorrhage								
3-Infiltration, histiocytic s								
2-Pigmentation								
273-B-Thymoma								
219-M-Carcinoma, metastatic								
265-N-Sarcoma, histiocytic								
41-N-Leukemia, monuc				1			1	
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
Operator >	Operator >			3=				
160-Angiectasis								
37-Cyst		2		1				
38-Degen								
148-Hemorrhage								
203-Necrosis						1=		
57-Hyperplasia, focal								
31-B-Adenoma, pars distalis				3				2

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Group	Sex	Dosage	Animal >	6832E467	6832E469	6832E471	6832E473	6832E475	6832E477	6832E479
1	F	0 g/m3	Animal >	6832E466	6832E468	6832E470	6832E472	6832E474	6832E476	6832E478
		Tissue/diagnosis	Death code >	U2	U2	U2	FS	U2	FS	FS
				U2	U2	U2	U1	U2	U1	U2
		Pituitary gland (10)	Status >	142	142	142	142	142	142	142
		274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-
		288-M-Carcinoma		-	-	-	-	-	-	-
		146-M-Leukemia, monoc		-	-	-	-	-	-	-
		Tail (3)	Status >	M	M	M	M	M	M	M
		202-Inflammation, acute	Operator >							
		152-Inflammation, mixed	s							
		153-Hyperplasia/hyperkeratosis	s							
		Bone, rib (1)	Status >	M	M	M	M	M	M	M
		157-M-Osteosarcoma	Operator >							
		Mesentery (2)	Status >	M	M	M	M	M	M	M
		171-Splenic tissue, "accessory"	Operator >						142	
		218-M-Carcinoma, metastatic	p						-	
		Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M
		221-N-Leukemia, monoc	Operator >							
		Zymbal's gland (1)	Status >	M	M	M	M	M	M	M
		223-M-Carcinoma, squamous cell	Operator >							
		Mediastinum (1)	Status >	M	M	M	M	M	M	M
		233-N-Leukemia, monoc	Operator >							
		Bone, other (1)	Status >	M	M	M	M	M	M	M
		272-Fracture	Operator >							
		Harderian gland (1)	Status >	M	M	M	M	M	M	M
		278-Pigment	Operator >							
		Vagina (1)	Status >	M	M	M	M	M	M	M
		287-M-Leiomyosarcoma	Operator >							

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Group	Sex	Dosage	Animal >	6832E467	6832E469	6832E470	6832E471	6832E472	6832E473	6832E474	6832E475	6832E476	6832E477	6832E478	6832E479
1	F	0 g/m3	Animal >	6832E466	6832E468	6832E470	6832E471	6832E472	6832E473	6832E474	6832E475	6832E476	6832E477	6832E478	6832E480
		Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	U1	U2	FS	U2	U1	FS	U1
		Tiss.not specifi	Status >	M	M	M	M	M	M	M	M	M	M	M	M
			Operator >												

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Group Sex Dosage	Animal >	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1 F 0 g/m3	Animal >	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	U2	FS
		U2	FS	U2	U2	FS	U2	FS

Lungs (12)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
40-Alveolar histiocytosis	Operator >	-	-	1	-	-	1	-	-	-	1	-	-
30-Congestion	s	-	-	-	-	-	-	-	-	-	-	-	-
71-Fibrosis, focal	s	-	-	-	-	-	-	-	-	-	-	-	-
182-Hemorrhage	s	-	-	1	-	-	-	-	-	2=	-	-	-
177-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-
72-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-
236-Inflammation, granulomatous	s	-	-	-	-	-	-	-	-	-	-	-	-
10-Hyperplasia, alv. epi. focal	s	-	-	-	1	-	-	-	-	-	-	-	2=
214-N-Carcinoma, metastatic	s	-	-	-	-	-	-	-	-	-	-	-	-
11-N-Leukemia,monuc - cap invol	s	-	2=	-	-	-	-	-	-	2	-	-	-
74-N-Leukemia,monuc - inv invol	s	-	-	-	-	-	-	-	-	2=	-	-	-
204-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-	-
Trachea (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
22-Inflammation, acute	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
75-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-
76-Hyperplasia	s	-	-	-	-	-	-	-	-	-	-	-	-
238-N-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-	-	-
Bronchial (TBLN) (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
21-Hemorrhage	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
297-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-
62-N-Leukemia, monuc	s	-	-	1=	-	-	-	-	-	1	-	-	-
Thyroid glands (8)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
79-Cyst, follicular	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
77-Hyperplasia, C-cell, focal	p	-	-	-	-	-	-	-	-	-	-	-	-
81-Hyperplasia, follicular cell	s	-	-	-	-	-	-	-	-	-	-	-	-
35-B-Adenoma, C-cell	s	-	1=	-	-	-	-	-	-	-	-	-	-
78-B-Adenoma, follicular cell	s	-	-	-	-	-	-	-	-	-	-	-	-
174-M-Carcinoma, C-cell	s	-	-	-	-	-	-	-	-	-	-	-	-
80-M-Carcinoma, follicular cell	s	-	-	-	-	-	-	-	-	-	-	-	-
178-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-	-	-
Parathyroid (2)	Status >	142	*H	142	142	142	142	142	142	mH	142	142	142
241-Hyperplasia, focal	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
296-B-Adenoma	s	-	-	-	-	-	-	-	-	-	-	-	1=
Aorta (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
83-N-Leukemia,monuc - inv invol	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
	s	-	-	-	-	-	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1 F 0 g/m3	Animal >	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	U2	FS
Esophagus	Status >	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
12-Metaplasia, squamous	s	-	-	-	-	-	-	-
1-Hyperplasia	s	1	-	-	1	2	-	-
23-Inflammation, acute	s	-	-	-	-	-	-	-
42-Inflammation, mixed	s	-	1	2	2	2	-	1
53-Inflammation, chronic	s	-	-	-	-	-	1	1
Salivary gland (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	1	-	-	-	-
43-M-Leukemia, monuc	Status >	142	142	142	142	142	142	142
Mandibular LN (2)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	1	-	-	-
89-Hemorrhage	s	-	-	-	1	-	-	1
44-N-Leukemia, monuc	Status >	142	142	142	142	142	142	142
Liver (15)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	1	-	-	-	-	-	-
45-Angiectasis	s	-	-	-	-	-	-	-
158-Congestion	s	-	-	-	-	-	-	-
90-Fatty Change	s	-	-	-	-	-	-	-
150-Foci cell alter, basophilic	s	-	-	-	-	-	-	-
92-Hdn	p	-	-	-	-	-	-	-
4-Necrosis	s	-	-	-	-	-	-	-
230-Thrombus	s	-	-	-	-	-	-	-
13-Vacuoliz cyto	s	-	-	-	-	-	-	-
24-Inflammation, acute	s	1	-	-	-	-	-	-
54-Inflammation, chronic	s	-	2	-	-	1	-	-
46-Hyperplasia, biliary	s	-	1	2	1	2	2	2
47-Hyperplasia, hepato, regen	s	-	-	3	-	-	-	-
91-B-Adenoma, hepatocellular	s	-	-	-	-	-	-	-
205-M-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
14-M-Leukemia, monuc	s	-	2	-	-	-	2	-
Spleen (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
96-Fibrosis	s	-	-	-	-	-	-	-
226-Hemorrhage	s	-	-	-	-	-	-	-
97-Necrosis	s	-	-	-	-	-	-	-
15-M-Leukemia, monuc	s	-	1	-	-	-	2	-
298-N-Sarcoma, histiocytic	s	-	-	2	-	-	-	2

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Group Sex Dosage	Animal >	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1 F 0 g/m3	Animal >	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	U2	FS
		U2	FS	U2	U2	FS	U2	FS

Kidneys (9)	Status >	142	142	142	142	142	142	142	142	142	142	142
211-Atrophy	Operator >	-	-	-	-	-	-	-	-	-	-	-
149-Cyst	s	-	-	-	-	-	-	-	-	-	-	-
209-Degen, hyaline droplet	s	-	-	-	-	-	-	-	-	-	-	-
210-Dilatation	s	-	-	-	-	-	-	-	-	-	-	-
228-Infarct	s	-	-	-	-	-	-	-	-	-	-	-
16-Nephropathy, chronic	s	1	2	1	1	1	2	1	2	1	2	1
6-Pigment accum, tub epi	s	-	-	-	-	-	-	-	-	-	-	-
98-M-Leukemia, monoc	s	-	-	-	-	-	-	-	-	-	-	-
299-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-

Heart (5)	Status >	142	142	142	142	142	142	142	142	142	142	142
100-Degen, myocyte	Operator >	-	-	-	-	-	-	-	-	-	-	-
101-Fibrosis	s	1	-	-	-	-	-	-	-	-	-	-
175-Thrombus	s	-	-	-	-	-	-	-	-	-	-	-
36-Inflammation, focal, chronic	s	-	-	-	-	-	-	-	-	-	-	-
48-M-Leukemia, monoc	s	-	-	-	-	-	-	-	-	-	-	-

Stomach (4)	Status >	142	142	142	142	142	142	142	142	142	142	142
268-Ulcer	Operator >	-	-	-	-	-	-	-	-	-	-	-
103-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-
217-M-Carcinoma, metastatic	s	-	-	-	-	-	-	-	-	-	-	-
220-M-Leukemia, monoc	s	-	-	-	-	-	-	-	-	-	-	-

Cecum (1)	Status >	142	142	142	142	142	142	142	142	142	142	142
104-N-Leukemia, monoc	Operator >	-	-	-	-	-	-	-	-	-	-	-

Urinary bladder (4)	Status >	142	142	142	142	142	142	142	142	142	142	142
186-Hemorrhage	Operator >	-	-	-	-	-	-	-	-	-	-	-
56-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-	-
166-Hyperplasia, papillary	s	-	-	-	-	-	-	-	-	-	-	-
106-M-Leukemia, monoc	s	-	-	-	-	-	-	-	-	-	-	-

Duodenum (1)	Status >	142	142	142	142	142	142	142	142	142	142	142
275-Inflammation, acute	Operator >	-	-	-	-	-	-	-	-	-	-	-
	s	-	-	-	-	-	-	-	-	-	-	-

Jejunum	Status >	142	142	142	142	142	142	142	142	142	142	142
	Operator >	U	U	U	U	U	U	U	U	U	U	U
	s	142	142	142	142	142	142	142	142	142	142	142

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Group Sex Dosage	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1 F 0 g/m3	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
Tissue/diagnosis	U2	U2	U2	U2	FS	U2	FS
Ileum (1)							
181-N-Leukemia, monuc	142	142	142	142	142	142	142
Colon							
Pancreas (2)							
212-Fibrosis							
110-M-Leukemia, monuc							
Rectum (1)							
276-Metaplasia, squamous							
Adrenal glands (9)							
161-Cyst							
113-Degen, cytopl vacuol							
170-Necrosis							
118-Thrombus							
117-Hyperplasia, cortical, focal							
64-Hyperplasia, focal							
116-B-Pheochrom, bgn							
216-M-Carcinoma, metastatic							
112-M-Leukemia, monuc							
Uterus (11)							
277-Angiectasis							
7-Dilatation							
167-Intussusception							
162-Inflammation, mixed							
49-Inflammation, chronic							
20-Hyperplasia, cystic endom							
286-B-Adenoma, endometrial							
9-B-Polyp, endometrial stromal							
213-M-Adenocarcinoma, endometr							
279-M-Leiomyosar							
165-M-Leukemia, monuc							
Mesenteric LN (4)							
120-Hemorrhage							
173-Inflammation, chronic							
206-N-Sarcoma, histiocytic							
32-N-Leukemia, monuc							

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Group	Sex	Dosage	Animal >	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1	F	0 g/m3	Animal >	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
			Death code >	U2	U2	U2	U2	FS	U2	FS
			Tissue/diagnosis							
			Ovaries (9)				mH			
			Status >	142	142	142	142	142	142	142
			Operator >							
			284-Congestion							
			154-Cyst, bursa							
			234-Cyst, epithelial							
			293-Cyst, follicular							
			291-Cyst, rete ovarii							
			25-Hemorrhage							
			290-Necrosis, mesenteric fat							
			207-N-Sarcoma, histiocytic							
			163-M-Leukemia, monoc							
			Sciatic nerve							
			Status >	U	U	U	U	U	U	U
			Operator >	142	142	142	142	142	142	142
			Muscle, skeletal (1)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			208-N-Sarcoma, histiocytic							
			Mammary gland (6)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			159-Ectasia							
			190-Hyperplasia, lobular							
			156-B-Fibroadenoma							
			70-B-Fibroma							
			235-M-Adenocarcinoma							
			224-M-AdenoCA arising in fibroAD							
			Skin (3)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			252-Cyst, epith inc							
			122-Fibrosis							
			253-Inflammation, mixed							
			Brain (6)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			26-Compression							
			192-Hemorrhage							
			155-Metaplasia, osseous, meninge							
			33-Necrosis							
			194-Inflammation, chronic							
			256-M-Astrocytoma, malignant							
			Eyes/optic nerve (7)							
			Status >	142	142	142	142	142	142	142
			Operator >							
			127-Atrophy							
			129-Atrophy, retinal, unilat							
			130-Cataract							
			133-Metaplasia, osseous, sclera							

Group Sex Dosage	Animal >	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1 F 0 g/m3	Animal >	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
Tissue/diagnosis	Death code >	U2	U2	U2	U2	FS	U2	FS
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
58-Mineralization, corneal str s	Operator >	142	142	142	142	142	142	142
126-Mineralization, scleral s	Operator >	142	142	142	142	142	142	142
131-Neovascularization, corneal s	Operator >	142	142	142	142	142	142	142
Bone, femur (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
179-New bone, endosteal s	Operator >	142	142	142	142	142	142	142
Spinal cord (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
27-Degen, white matter s	Operator >	142	142	142	142	142	142	142
197-Hemorrhage s	Operator >	142	142	142	142	142	142	142
231-Necrosis, neuronal s	Operator >	142	142	142	142	142	142	142
Nose/Turbinates 1 (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
260-Degeneration,hyal-resp epith s	Operator >	142	142	142	142	142	142	142
134-Inflammation, mixed s	Operator >	142	142	142	142	142	142	142
34-Inflammation-nasolac duct s	Operator >	142	142	142	142	142	142	142
136-Inflammation-resp epith s	Operator >	142	142	142	142	142	142	142
199-Hyperplasia-resp epith s	Operator >	142	142	142	142	142	142	142
Nose/Turbinates 2 (6)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
18-Degeneration,hyaline-olf epith s	Operator >	142	142	142	142	142	142	142
261-Degeneration,hyal-resp epith s	Operator >	142	142	142	142	142	142	142
176-Metaplasia, sec-olfact epith s	Operator >	142	142	142	142	142	142	142
270-Metaplasia, squ-olfact epith s	Operator >	142	142	142	142	142	142	142
138-Inflammation, mixed s	Operator >	142	142	142	142	142	142	142
227-Hyperplasia-resp epith s	Operator >	142	142	142	142	142	142	142
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
295-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142
19-Degeneration,hyaline-olf epith s	Operator >	142	142	142	142	142	142	142
232-Degeneration-resp epith s	Operator >	142	142	142	142	142	142	142
142-Inflammation, mixed s	Operator >	142	142	142	142	142	142	142
Nose/Turbinates 4 (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
285-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142
164-Degeneration,hyaline-olf epith s	Operator >	142	142	142	142	142	142	142
144-Inflammation, mixed s	Operator >	142	142	142	142	142	142	142

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Group Sex Dosage	Animal >	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1 F 0 g/m3	Animal >	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
Tissue/diagnosis	Death code >	U2	FS	U2	U2	FS	U2	FS
Cervix (3)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
168-B-Polyp, endometrial stromal	Status >	M	M	M	M	M	M	M
289-M-Leiomyosarcoma	Operator >							
269-N-Adenocarcinoma, endometr	Status >	M	M	M	M	M	M	M
Clitoral gland (3)	Operator >							
294-B-Adenoma	Status >	M	M	M	M	M	M	M
61-M-Carcinoma, squamous cell	Operator >							
271-N-Adenocarcinoma	Status >	M	M	M	M	M	M	M
Lymph node other (3)	Operator >							
60-Hemorrhage	Status >	M	M	M	M	M	M	M
59-Infiltration, histiocytic	Operator >							
65-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Popliteal LN (1)	Operator >							
66-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Iliac LN (1)	Operator >							
67-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Pancreatic LN (1)	Operator >							
68-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Mediastinal LN (7)	Operator >							
29-Hemorrhage	Status >	142	142	142	142	142	142	142
3-Infiltration, histiocytic	Operator >							
2-Pigmentation	S							
273-B-Thymoma	S							
219-M-Carcinoma, metastatic	S							
265-N-Sarcoma, histiocytic	S							
41-N-Leukemia, monuc	S							
Pituitary gland (10)	S							
160-Angiectasis	Operator >	142	142	142	142	142	142	142
37-Cyst	S							
38-Degen	S							
148-Hemorrhage	S							
203-Necrosis	S							
57-Hyperplasia, focal	S							
31-B-Adenoma, pars distalis	S							

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Group Sex Dosage	Animal >	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1 F 0 g/m3	Animal >	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
Tissue/diagnosis	Death code >	U2	FS	U2	U2	FS	U2	FS
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-
288-M-Carcinoma	s	-	-	-	-	-	-	-
146-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >							
152-Inflammation, mixed	s							
153-Hyperplasia/hyperkeratosis	s							
Bone, rib (1)	Status >	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >							
Mesentery (2)	Status >	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >							
218-M-Carcinoma, metastatic	p							
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >							
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >							
Mediastinum (1)	Status >	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >							
Bone, other (1)	Status >	M	M	M	M	M	M	M
272-Fracture	Operator >							
Harderian gland (1)	Status >	M	M	M	M	M	M	M
278-Pigment	Operator >							
Vagina (1)	Status >	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >							

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Group	Sex	Dosage	Animal	6832E482	6832E484	6832E486	6832E488	6832E490	6832E492	6832E494
1	F	0 g/m3	Animal >	6832E481	6832E483	6832E485	6832E487	6832E489	6832E491	6832E493
			Death code >	U2	FS	U2	U2	FS	U2	FS
			Tissue/diagnosis							
			Tiss.not specifi	M	M	M	M	M	M	M
			Status >							
			Operator >							

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Group	Sex	Dosage	Animal >	6832E497	6832E499	6832E498	6832E500
Tissue/diagnosis			Death code >	FS	FS	FS	FS
<b>Lungs (12)</b>							
40-Alveolar histiocytosis			Operator >	142	142	142	142
30-Congestion			s	-	-	-	-
71-Fibrosis, focal			s	-	-	-	-
182-Hemorrhage			s	-	-	-	-
177-Inflammation, acute			s	-	-	-	-
72-Inflammation, mixed			s	-	-	-	-
236-Inflammation, granulomatous			s	-	-	-	-
10-Hyperplasia, alv. epi. focal			s	-	-	-	-
214-N-Carcinoma, metastatic			s	-	-	-	-
11-N-Leukemia, monoc - cap invol			2	-	-	2	-
74-N-Leukemia, monoc - inv invol			-	-	-	-	-
204-N-Sarcoma, histiocytic			-	-	-	-	-
<b>Trachea (4)</b>							
22-Inflammation, acute			Operator >	142	142	142	142
75-Inflammation, mixed			s	-	-	-	-
76-Hyperplasia			s	-	-	-	-
238-N-Leukemia, monoc			-	-	-	-	-
<b>Bronchial (TBLN) (3)</b>							
21-Hemorrhage			Operator >	142	142	142	142
297-Inflammation, mixed			s	-	-	-	-
62-N-Leukemia, monoc			s	1=	-	-	-
<b>Thyroid glands (8)</b>							
79-Cyst, follicular			Operator >	142	142	142	142
77-Hyperplasia, C-cell, focal			p	-	-	-	-
81-Hyperplasia, follicular cell			s	-	-	-	-
35-B-Adenoma, C-cell			-	-	-	-	-
78-B-Adenoma, follicular cell			-	-	-	-	-
174-M-Carcinoma, C-cell			-	-	-	-	-
80-M-Carcinoma, follicular cell			-	-	-	-	-
178-M-Leukemia, monoc			-	-	-	-	-
<b>Parathyroid (2)</b>							
241-Hyperplasia, focal			Operator >	mH	142	142	142
296-B-Adenoma			s	-	2	-	-
<b>Aorta (1)</b>							
83-N-Leukemia, monoc - inv invol			Operator >	142	142	142	142
			Operator >	-	-	-	-

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Group	Sex	Dosage	Animal >	6832E497	6832E499	6832E498	6832E500
1	F	0 g/m3	Animal >	6832E496	6832E498	6832E498	6832E500
			Death code >	U2	FS	FS	FS
			Tissue/diagnosis				
<hr/>							
Esophagus							
			Status >	U	U	U	U
			Operator >	142	142	142	142
<hr/>							
Larynx (5)							
			Status >				
			Operator >	142	142	142	142
12-Metaplasia, squamous			s	2	-	-	-
1-Hyperplasia			s	-	-	-	1
23-Inflammation, acute			s	-	-	-	-
42-Inflammation, mixed			s	3	-	-	1
53-Inflammation, chronic			s	-	-	-	-
<hr/>							
Salivary gland (1)							
			Status >				
			Operator >	142	142	142	142
43-M-Leukemia, monuc				-	-	-	-
<hr/>							
Mandibular LN (2)							
			Status >				
			Operator >	142	142	142	142
89-Hemorrhage			s	-	-	-	-
44-N-Leukemia, monuc				1=	-	-	-
<hr/>							
Liver (15)							
			Status >				
			Operator >	142	142	142	142
45-Angiectasis			s	-	-	-	-
158-Congestion			s	-	-	-	-
90-Fatty Change			s	-	-	-	-
150-Foci cell alter, basophilic			s	-	-	-	-
92-Hdn			p	-	-	-	-
4-Necrosis			s	-	-	-	-
230-Thrombus			s	-	-	-	-
13-Vacuoliz cyto			s	-	-	-	-
24-Inflammation, acute			s	-	-	-	-
54-Inflammation, chronic			s	-	-	1	-
46-Hyperplasia, biliary			s	1	-	2	2
47-Hyperplasia, hepato, regen			s	-	-	-	-
91-B-Adenoma, hepatocellular				-	1=	-	-
205-M-Sarcoma, histiocytic				-	-	-	-
14-M-Leukemia, monuc				2=	1	-	2=
<hr/>							
Spleen (5)							
			Status >				
			Operator >	142	142	142	142
96-Fibrosis			s	-	-	-	-
226-Hemorrhage			s	-	-	-	-
97-Necrosis			s	-	-	-	-
15-M-Leukemia, monuc				1=	1	-	2=
298-N-Sarcoma, histiocytic				-	-	-	-

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Group	Sex	Dosage	Animal >	6832E497	6832E499	6832E498	6832E500
1	F	0 g/m3	Animal >	6832E496	6832E498	6832E498	6832E500
Tissue/diagnosis			Death code >	U2	FS	FS	FS
Kidneys (9)							
			Status >	142	142	142	142
			Operator >	-	-	-	-
211	-	Atrophy	S	-	-	-	-
149	-	Cyst	S	-	-	-	-
209	-	Degen, hyaline droplet	S	-	-	-	-
210	-	Dilatation	S	-	-	-	-
228	-	Infarct	S	-	-	-	-
16	-	Nephropathy, chronic	S	1	1	1	1
6	-	Pigment accum, tub epi	S	-	-	-	-
98	-	M-Leukemia, monuc	S	-	-	-	-
299	-	N-Sarcoma, histiocytic	S	-	-	-	-
Heart (5)							
			Status >	142	142	142	142
			Operator >	-	-	-	-
100	-	Degen, myocyte	S	-	-	-	1
101	-	Fibrosis	S	-	-	-	-
175	-	Thrombus	S	-	-	-	-
36	-	Inflammation, focal, chronic	S	1	1	1	1
48	-	M-Leukemia, monuc	S	1	-	-	-
Stomach (4)							
			Status >	142	142	142	142
			Operator >	-	-	-	-
268	-	Ulcer	S	-	-	-	-
103	-	Inflammation, mixed	S	-	-	-	-
217	-	M-Carcinoma, metastatic	S	-	-	-	-
220	-	M-Leukemia, monuc	S	-	-	-	-
Cecum (1)							
			Status >	142	142	142	142
			Operator >	-	-	-	-
104	-	N-Leukemia, monuc	S	-	-	-	-
Urinary bladder (4)							
			Status >	142	142	142	142
			Operator >	-	-	-	-
186	-	Hemorrhage	S	-	-	-	-
56	-	Inflammation, chronic	S	-	-	-	-
166	-	Hyperplasia, papillary	S	-	-	-	-
106	-	M-Leukemia, monuc	S	-	-	-	-
Duodenum (1)							
			Status >	142	142	142	142
			Operator >	-	-	-	-
275	-	Inflammation, acute	S	-	-	-	-
Jejunum							
			Status >	U	U	U	U
			Operator >	142	142	142	142

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Group Sex Dosage	Animal >	6832E497	6832E499	6832E498	6832E500
1 F 0 g/m3	Animal >	6832E496	6832E498	6832E498	6832E500
Tissue/diagnosis	Death code >	U2	FS	FS	U2
Ileum (1)	Status >				
181-N-Leukemia, monuc	Operator >	142	142	142	142
Colon	Status >				
	Operator >	142	142	142	142
Pancreas (2)	Status >				
212-Fibrosis	Operator >	142	142	142	142
110-M-Leukemia, monuc	s	-	-	-	-
Rectum (1)	Status >				
276-Metaplasia, squamous	Operator >	142	142	142	142
Adrenal glands (9)	Status >				
161-Cyst	Operator >	142	142	142	142
113-Degen, cytopl vacuol	s	-	-	-	-
170-Necrosis	s	-	-	-	1
118-Thrombus	s	-	-	-	-
117-Hyperplasia, cortical, focal	s	-	-	-	-
64-Hyperplasia, focal	p	P	-	-	-
116-B-Pheochrom, bgn		-	-	-	-
216-M-Carcinoma, metastatic		-	-	-	-
112-M-Leukemia, monuc		-	-	-	-
Uterus (11)	Status >				
277-Angiectasis	Operator >	142	142	142	142
7-Dilatation	s	-	-	-	-
167-Intussusception	p	-	-	-	-
162-Inflammation, mixed	s	-	-	-	-
49-Inflammation, chronic	s	1	-	-	-
20-Hyperplasia, cystic endom	s	-	1	-	-
286-B-Adenoma, endometrial		-	-	-	-
9-B-Polyp, endometrial stromal		-	-	-	-
213-M-Adenocarcinoma, endometr		-	-	-	-
279-M-Leiomyosar		-	-	-	-
165-M-Leukemia, monuc		-	-	-	-
Mesenteric LN (4)	Status >				
120-Hemorrhage	Operator >	142	142	142	142
173-Inflammation, chronic	s	-	-	-	-
206-N-Sarcoma, histiocytic	s	-	-	-	-
32-N-Leukemia, monuc		1=	-	-	-

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Group Sex Dosage Animal > 6832E497 6832E499  
1 F 0 g/m3 Animal > 6832E496 6832E498 6832E500  
Tissue/diagnosis Death code > U2 FS FS U2 FS

Ovaries (9)	Status >	142	142	142	142	142	142	142
284-Congestion	Operator >	-	-	-	-	-	-	-
154-Cyst, bursa	s	-	-	-	-	-	-	-
234-Cyst, epithelial	p	-	-	-	-	-	-	-
293-Cyst, follicular	p	-	-	-	-	-	-	-
291-Cyst, rete ovarii	s	-	-	-	-	-	-	-
25-Hemorrhage	s	-	-	-	-	-	-	-
290-Necrosis, mesenteric fat	s	-	-	-	-	-	-	-
207-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
163-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Sciatic nerve	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Muscle, skeletal (1)	Status >	-	-	-	-	-	-	-
208-N-Sarcoma, histiocytic	Operator >	142	142	142	142	142	142	142
Mammary gland (6)	Status >	-	-	-	-	-	-	-
	Operator >	142	142	142	142	142	142	142
159-Ectasia	s	-	-	-	-	-	-	-
190-Hyperplasia, lobular	s	-	-	-	-	-	-	1=
156-B-Fibroadenoma		-	-	-	-	-	-	-
70-B-Fibroma		-	-	-	-	-	-	-
235-M-Adenocarcinoma		-	-	-	-	-	-	-
224-M-AdenoCA arising in fibroAD		-	-	-	-	-	-	2=
Skin (3)	Status >	-	-	-	-	-	-	-
	Operator >	142	142	142	142	142	142	142
252-Cyst, epith inc	p	-	-	-	-	-	-	-
122-Fibrosis	s	-	-	-	-	-	-	-
253-Inflammation, mixed	s	-	-	-	-	-	-	-
Brain (6)	Status >	-	-	-	-	-	-	-
	Operator >	142	142	142	142	142	142	142
26-Compression	s	-	-	-	-	-	-	-
192-Hemorrhage	s	-	-	-	-	-	-	-
155-Metaplasia, osseous, meninge	s	-	-	-	-	-	-	-
33-Necrosis	s	-	-	-	-	-	-	-
194-Inflammation, chronic	s	-	-	-	-	-	-	-
256-M-Astrocytoma, malignant	s	-	-	-	-	-	-	-
Eyes/optic nerve (7)	Status >	-	-	-	-	-	-	-
	Operator >	142	142	142	142	142	142	142
127-Atrophy	s	-	-	-	-	-	-	-
129-Atrophy, retinal, unilat	s	-	-	-	-	-	-	-
130-Cataract	p	-	-	-	-	-	-	-
133-Metaplasia, osseous, sclera	s	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6832E497	6832E498	6832E499
1	F	0 g/m3	Animal >	6832E496	6832E498	6832E500
			Death code >	U2	FS	U2
				FS	FS	FS
				FS	FS	FS
<b>Eyes/optic nerve (7)</b>						
			Status >	142	142	142
			Operator >	-	-	-
			58-Mineralization, corneal str s	-	-	-
			126-Mineralization, scleral s	-	1	-
			131-Neovascularization, corneal s	-	-	-
<b>Bone, femur (1)</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>179-New bone, endosteal</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>Spinal cord (3)</b>						
			Status >	142	142	142
			Operator >	-	-	-
			27-Degen, white matter s	-	-	-
			197-Hemorrhage s	-	-	-
			231-Necrosis, neuronal s	-	-	-
<b>Nose/Turbinates</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>260-Degeneration, hyal-resp epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
			134-Inflammation, mixed s	-	-	-
			34-Inflammation-nasolac duct s	1	1	-
			136-Inflammation-resp epith s	-	-	-
			199-Hyperplasia-resp epith s	-	-	-
<b>Nose/Turbinates</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>18-Degeneration, hyaline-olf epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>261-Degeneration, hyal-resp epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>176-Metaplasia, sec-olfact epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>270-Metaplasia, squ-olfact epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>138-Inflammation, mixed s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>227-Hyperplasia-resp epith s</b>						
<b>Nose/Turbinates</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>295-Degeneration-olfact epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>19-Degeneration, hyaline-olf epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>232-Degeneration-resp epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>142-Inflammation, mixed s</b>						
<b>Nose/Turbinates</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>285-Degeneration-olfact epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>164-Degeneration, hyaline-olf epith s</b>						
			Status >	142	142	142
			Operator >	-	-	-
<b>144-Inflammation, mixed s</b>						

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Group	Sex	Dosage	Animal >	6832E497	6832E499	6832E498	6832E500
1	F	0 g/m3	Animal >	6832E496	6832E498	6832E498	6832E500
			Death code >	U2 FS	FS	U2	FS
			Tissue/diagnosis				
Cervix (3)							
			Status >	M	M	M	M
			Operator >				
168-B-Polyp, endometrial stromal							
289-M-Leiomyosarcoma							
269-N-Adenocarcinoma, endometr							
Clitoral gland (3)							
			Status >	M	M	M	M
			Operator >				
294-B-Adenoma							
61-M-Carcinoma, squamous cell							
271-N-Adenocarcinoma							
Lymph node other (3)							
			Status >	M	M	M	M
			Operator >	142			
60-Hemorrhage							
59-Infiltration, histiocytic s							
65-N-Leukemia, monuc 1=							
Popliteal LN (1)							
			Status >	M	M	M	M
			Operator >	142			
66-N-Leukemia, monuc 1=							
Iliac LN (1)							
			Status >	M	M	M	M
			Operator >	142			
67-N-Leukemia, monuc 1=							
Pancreatic LN (1)							
			Status >	M	M	M	M
			Operator >	142			
68-N-Leukemia, monuc 1=							
Mediastinal LN (7)							
			Status >	142	142	142	142
			Operator >				
29-Hemorrhage s							
3-Infiltration, histiocytic s							
2-Pigmentation s							
273-B-Thymoma							
219-M-Carcinoma, metastatic							
265-N-Sarcoma, histiocytic							
41-N-Leukemia, monuc 1=							
Pituitary gland (10)							
			Status >	142	142	142	142
			Operator >				
160-Angiectasis s							
37-Cyst s 2=							
38-Degen s 3							
148-Hemorrhage s							
203-Necrosis s 3=							
57-Hyperplasia, focal s 3							
31-B-Adenoma, pars distalis							

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Group	Sex	Dosage	Animal >	6832E497	6832E499	6832E498	6832E500
1	F	0 g/m3	Animal >	6832E496	6832E498	6832E498	6832E500
Tissue/diagnosis			Death code >	U2	FS	FS	FS
Pituitary gland (10)							
			Status >	142	142	142	142
			Operator >	-	-	-	-
274-B-Adenoma, pars intermedia							
288-M-Carcinoma							
146-M-Leukemia, monuc							
Tail (3)							
			Status >	M	M	M	M
			Operator >				
202-Inflammation, acute							
152-Inflammation, mixed							
153-Hyperplasia/hyperkeratosis							
Bone, rib (1)							
			Status >	M	M	M	M
			Operator >				
157-M-Osteosarcoma							
Mesentery (2)							
			Status >	M	M	M	M
			Operator >				
171-Splenic tissue, "accessory" p							
218-M-Carcinoma, metastatic							
Bone, vertebrae (1)							
			Status >	M	M	M	M
			Operator >				
221-N-Leukemia, monuc							
Zymbal's gland (1)							
			Status >	M	M	M	M
			Operator >				
223-M-Carcinoma, squamous cell							
Mediastinum (1)							
			Status >	M	M	M	M
			Operator >				
233-N-Leukemia, monuc							
Bone, other (1)							
			Status >	M	M	M	M
			Operator >				
272-Fracture							
Harderian gland (1)							
			Status >	M	M	M	M
			Operator >				
278-Pigment							
Vagina (1)							
			Status >	M	M	M	M
			Operator >				
287-M-Leiomyosarcoma							

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Group	Sex	Dosage	Animal >	6832E497	6832E499
1	F	0 g/m3	Animal >	6832E496	6832E500
			Death code >	U2 FS	U2 FS
				M	M
			Status >	M	M
			Operator >	M	M

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Group Sex Dosage	Animal >	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563	6834F564	6834F565	
2 F 2 g/m3	Animal >	6834F551	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563	6834F564	6834F565
Tissue/diagnosis	Death code >	FS	U2	FS	FS	FS	U2	FS	FS	FS	FS	FS	U2	FS	FS	U2
Lungs (12)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
40-Alveolar histiocytosis	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-Congestion	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71-Fibrosis, focal	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
182-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
177-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
236-Inflammation, granulomatous	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-Hyperplasia, alv. epi. focal	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
214-N-Carcinoma, metastatic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-N-Leukemia, monoc - cap invol	1	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-
74-N-Leukemia, monoc - inv invol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
204-N-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trachea (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
22-Inflammation, acute	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76-Hyperplasia	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
238-N-Leukemia, monoc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bronchial (TBLN) (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
21-Hemorrhage	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
297-Inflammation, mixed	s	2	-	-	-	-	-	-	-	-	-	3	-	-	-	-
62-N-Leukemia, monoc	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thyroid glands (8)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
79-Cyst, follicular	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77-Hyperplasia, C-cell, focal	p	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81-Hyperplasia, follicular cell	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35-B-Adenoma, C-cell	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78-B-Adenoma, follicular cell	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
174-M-Carcinoma, C-cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80-M-Carcinoma, follicular cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
178-M-Leukemia, monoc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parathyroid (2)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
241-Hyperplasia, focal	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
296-B-Adenoma	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aorta (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
83-N-Leukemia, monoc - inv invol	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563	6834F564	
2 F 2 g/m3	Animal >	6834F551	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563	6834F564
Tissue/diagnosis	Death code >	FS	U2	FS	FS	FS	U2	FS	FS	FS	FS	U2	FS	FS	FS
Esophagus	Status >		U				U					U			U
	Operator >		142				142					142			142
Larynx (5)	Status >														
12-Metaplasia, squamous	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
1-Hyperplasia	s	-	-	2	-	-	-	-	-	-	1	-	-	1	-
23-Inflammation, acute	s	-	-	1	-	-	-	-	-	-	-	-	-	-	-
42-Inflammation, mixed	s	1	-	1	2	1	1	-	-	-	2	-	2	2	1
53-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Salivary gland (1)	Status >														
43-M-Leukemia, monuc	Operator >		142				142					142			142
Mandibular LN (2)	Status >														
89-Hemorrhage	Operator >		142				*H					142			142
44-N-Leukemia, monuc	s		-				142					-			-
Liver (15)	Status >														
45-Angiectasis	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
158-Congestion	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90-Fatty Change	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150-Foci cell alter, basophilic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92-Hdn	p	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
230-Thrombus	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13-Vacuoliz cyto	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46-Hyperplasia, biliary	s	2	-	2	-	1	-	-	1	-	-	-	-	2	1
47-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91-B-Adenoma, hepatocellular	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
205-M-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14-M-Leukemia, monuc	1=	2=	1=				1=								
Spleen (5)	Status >														
96-Fibrosis	Operator >		142				142					142			142
226-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
97-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-M-Leukemia, monuc	s	2=	-				1=								
298-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6834F552	6834F554	6834F556	6834F558	6834F560	6834F562	6834F564
2 F 2 g/m3	Animal >	6834F551	6834F553	6834F555	6834F557	6834F559	6834F561	6834F563
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Kidneys (9)	Status >	142		142		142		142
211-Atrophy	Operator >	-		-		-		-
149-Cyst	s	-		-		-		-
209-Degen, hyaline droplet	s	-		-		-		-
210-Dilatation	s	-		-		-		-
228-Infarct	s	-		-		-		-
16-Nephropathy, chronic	s	1		1		1		1
6-Pigment accum, tub epi	s	-		-		-		-
98-M-Leukemia, monoc		-		-		-		-
299-N-Sarcoma, histiocytic		-		-		-		-
Heart (5)	Status >	142		142		142		142
100-Degen, myocyte	Operator >	-		-		-		-
101-Fibrosis	s	-		-		-		-
175-Thrombus	s	-		-		-		-
36-Inflammation, focal, chronic	s	-		-		-		-
48-M-Leukemia, monoc		-		-		-		-
Stomach (4)	Status >	142		142		142		142
268-Ulcer	Operator >	-		-		-		-
103-Inflammation, mixed	s	-		-		-		-
217-M-Carcinoma, metastatic	s	-		-		-		-
220-M-Leukemia, monoc		-		-		-		-
Cecum (1)	Status >	142		142		142		142
104-N-Leukemia, monoc	Operator >	-		-		-		-
Urinary bladder (4)	Status >	142		142		142		142
186-Hemorrhage	Operator >	-		-		-		-
56-Inflammation, chronic	s	-		-		-		-
166-Hyperplasia, papillary	s	-		-		-		-
106-M-Leukemia, monoc		-		-		-		-
Duodenum (1)	Status >	142		142		142		142
275-Inflammation, acute	Operator >	-		-		-		-
Jejunum	s	-		-		-		-
	Status >	U		U		U		U
	Operator >	142		142		142		142

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Group Sex Dosage	Animal >	6834F552	6834F554	6834F556	6834F558	6834F560	6834F562	6834F564
2 F 2 g/m3	Animal >	6834F551	6834F553	6834F555	6834F557	6834F559	6834F561	6834F563
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Ileum (1)	Status >	142	142	142	142	142	142	142
181-N-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Colon	Status >	U	U	U	U	U	U	U
Pancreas (2)	Operator >	142	142	142	142	142	142	142
212-Fibrosis	Status >	-	-	-	-	-	-	-
110-M-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Rectum (1)	Status >	142	142	142	142	142	142	142
276-Metaplasia, squamous	Operator >	-	-	-	-	-	-	-
Adrenal glands (9)	Status >	142	142	142	142	142	142	142
161-Cyst	Operator >	-	-	-	-	-	-	-
113-Degen, cytopl vacuol	S	-	-	-	-	-	-	-
170-Necrosis	S	-	-	-	-	-	-	-
118-Thrombus	S	-	-	-	-	-	-	-
117-Hyperplasia, cortical, focal	S	-	-	-	-	-	-	-
64-Hyperplasia, focal	p	-	-	-	-	-	-	-
116-B-Pheochrom, bgn	p	-	-	-	-	-	-	-
216-M-Carcinoma, metastatic	-	-	-	-	-	-	-	-
112-M-Leukemia, monuc	-	-	-	-	-	-	-	-
Uterus (11)	Status >	142	142	142	142	142	142	142
277-Angiectasis	Operator >	-	-	-	-	-	-	-
7-Dilatation	S	-	-	-	-	-	-	-
167-Intussusception	S	-	-	-	-	-	-	-
162-Inflammation, mixed	p	-	-	-	-	-	-	-
49-Inflammation, chronic	S	-	-	-	-	-	-	-
20-Hyperplasia, cystic endom	S	-	-	-	-	-	-	-
286-B-Adenoma, endometrial	S	2	2	2	2	2	2	2
9-B-Polyp, endometrial stromal	-	-	-	-	-	-	-	-
213-M-Adenocarcinoma, endometr	1=	1=	1=	1=	1=	1=	1=	1=
279-M-Leiomyosar	-	-	-	-	-	-	-	-
165-M-Leukemia, monuc	-	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
120-Hemorrhage	Operator >	-	-	-	-	-	-	-
173-Inflammation, chronic	S	-	-	-	-	-	-	-
206-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
32-N-Leukemia, monuc	-	1	1	1	1	1	1	1

Group Sex Dosage	Animal >	6834F552	6834F554	6834F556	6834F558	6834F560	6834F562	6834F564
2 F 2 g/m3	Animal >	6834F551	6834F553	6834F555	6834F557	6834F559	6834F561	6834F563
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Ovaries (9)	Status >	142	142	142	142	142	142	142
284-Congestion	Operator >	-	-	-	-	-	-	-
154-Cyst, bursa	s	-	-	-	-	-	-	-
234-Cyst, epithelial	p	-	-	P	-	-	-	-
293-Cyst, follicular	p	-	-	-	-	-	-	-
291-Cyst, rete ovarii	s	-	-	-	-	-	-	-
25-Hemorrhage	s	-	-	-	-	-	-	-
290-Necrosis, mesenteric fat	s	-	-	-	-	-	-	-
207-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
163-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Sciatic nerve	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Muscle, skeletal (1)	Status >	142	142	142	142	142	142	142
208-N-Sarcoma, histiocytic	Operator >	-	-	-	-	-	-	-
Mammary gland (6)	Status >	142	142	142	142	142	142	142
159-Ectasia	s	-	-	-	-	-	-	-
190-Hyperplasia, lobular	s	-	-	-	-	-	-	-
156-B-Fibroadenoma	s	-	-	-	-	-	-	-
70-B-Fibroma	1=	-	-	-	-	-	-	-
235-M-Adenocarcinoma	-	-	-	-	-	-	-	-
224-M-AdenoCA arising in fibroAD	-	-	-	-	-	-	-	-
Skin (3)	Status >	142	142	142	142	142	142	142
252-Cyst, epith inc	Operator >	-	-	-	-	-	-	-
122-Fibrosis	p	-	-	-	-	-	-	-
253-Inflammation, mixed	s	-	-	-	-	-	-	-
Brain (6)	Status >	142	142	142	142	142	142	142
26-Compression	Operator >	-	-	-	-	-	-	-
192-Hemorrhage	s	-	-	-	-	-	-	-
155-Metaplasia, osseous, meninge	s	-	-	-	-	-	-	-
33-Necrosis	s	-	-	-	-	-	-	-
194-Inflammation, chronic	s	-	-	-	-	-	-	-
256-M-Astrocytoma, malignant	s	-	-	-	-	-	-	-
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142
127-Atrophy	Operator >	-	-	-	-	-	-	-
129-Atrophy, retinal, unilat	s	-	-	-	-	-	-	-
130-Cataract	p	-	-	-	-	-	-	-
133-Metaplasia, osseous, sclera	s	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563	6834F564	
2 F 2 g/m3	Animal >	6834F551	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563	6834F564
Tissue/diagnosis	Death code >	FS	U2	FS	FS	FS	U2	FS	FS	FS	FS	U2	FS	FS	FS
Eyes/optic nerve (7)	Status >														
Operator >			142		142	142	142				142	142			142
58-Mineralization, corneal str s			-		-	-	-				-	-			-
126-Mineralization, scleral s			-		-	-	-				-	-			-
131-Neovascularization, corneal s			-		-	-	-				-	-			-
Bone, femur (1)	Status >														
Operator >			142		142	142	142				142	142			142
179-New bone, endosteal s			-		-	-	-				-	-			-
Spinal cord (3)	Status >														
Operator >			142		142	142	142				142	142			142
27-Degen, white matter s			-		-	-	-				-	-			-
197-Hemorrhage s			-		-	-	-				-	-			-
231-Necrosis, neuronal s			-		-	-	-				-	-			-
Nose/Turbinates 1 (5)	Status >														
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142	142
260-Degeneration, hyal-resp epith s			-		-	-	-				-	-			-
134-Inflammation, mixed s			-		-	-	-	1	-	-	2	-			1
34-Inflammation-nasolac duct s			-		-	-	-	2	-	-	3	-			3
136-Inflammation-resp epith s			-		-	-	-	-	-	-	-	-			-
199-Hyperplasia-resp epith s			-		-	-	-	-	-	-	-	-			-
Nose/Turbinates 2 (6)	Status >														
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142	142
18-Degeneration, hyaline-olf epith s			-		-	-	-				-	-			-
261-Degeneration, hyal-resp epith s			-		-	-	-				-	-			-
176-Metaplasia, sec-olfact epith s			-		-	-	-				-	-			-
270-Metaplasia, squ-olfact epith s			-		-	-	-				-	-			-
138-Inflammation, mixed s			-		-	-	-	1	-	-	-	-			-
227-Hyperplasia-resp epith s			-		-	-	-	-	-	-	-	-			-
Nose/Turbinates 3 (4)	Status >														
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142	142
295-Degeneration-olfact epith s			-		-	-	-				-	-			-
19-Degeneration, hyaline-olf epith s			-		-	-	-	1	-	-	-	-			1
232-Degeneration-resp epith s			-		-	-	-	2	-	-	-	-			2
142-Inflammation, mixed s			-		-	-	-	2	-	-	-	-			2
Nose/Turbinates 4 (3)	Status >														
Operator >		142	142	142	142	142	142	142	142	142	142	142	142	142	142
285-Degeneration-olfact epith s			-		-	-	-	2	-	-	-	-			2
164-Degeneration, hyaline-olf epith s			-		-	-	-	-	-	-	-	-			-
144-Inflammation, mixed s			-		-	-	-	2	-	-	-	-			2

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2 F 2 g/m3	Animal >	6834F551	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563
Tissue/diagnosis	Death code >	FS	U2	FS	FS	FS	U2	FS	FS	FS	FS	U2	FS	FS
Cervix (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >													
168-B-Polyp, endometrial stromal														
289-M-Leiomyosarcoma														
269-N-Adenocarcinoma, endometr														
Clitoral gland (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >													
294-B-Adenoma														
61-M-Carcinoma, squamous cell														
271-N-Adenocarcinoma														
Lymph node other (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >													
60-Hemorrhage														
59-Infiltration, histiocytic	s													
65-N-Leukemia, monuc	s													
Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >													
66-N-Leukemia, monuc														
Iliac LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >													
67-N-Leukemia, monuc														
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >													
68-N-Leukemia, monuc														
Mediastinal LN (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
29-Hemorrhage	s													
3-Infiltration, histiocytic	s													
2-Pigmentation	s													
273-B-Thymoma														
219-M-Carcinoma, metastatic														
265-N-Sarcoma, histiocytic														
41-N-Leukemia, monuc	1													
Pituitary gland (10)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >													
160-Angiectasis	s													
37-Cyst	s													
38-Degen	s													
148-Hemorrhage	s													
203-Necrosis	s													
57-Hyperplasia, focal	s													
31-B-Adenoma, pars distalis	s													

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Group Sex Dosage	Animal >	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563	6834F564	6834F565	
2 F 2 g/m3	Animal >	6834F551	6834F552	6834F553	6834F554	6834F555	6834F556	6834F557	6834F558	6834F559	6834F560	6834F561	6834F562	6834F563	6834F564	6834F565
Tissue/diagnosis	Death code >	FS	U2	FS	FS	FS	U2	FS	FS	FS	FS	U2	FS	FS	FS	U2
Pituitary gland (10)	Status >		142			142			142			142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >		-			-			-			-	-	-	-	-
288-M-Carcinoma			-			-			-			-	-	-	-	-
146-M-Leukemia, monoc			-			-			-			-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >															
152-Inflammation, mixed	s															
153-Hyperplasia/hyperkeratosis	s															
Bone, rib (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >															
Mesentery (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >															
218-M-Carcinoma, metastatic	p															
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >															
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >															
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >															
Bone, other (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
272-Fracture	Operator >															
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
278-Pigment	Operator >															
Vagina (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >															

142  
1=



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Group Sex Dosage	Animal >	6834F567	6834F569	6834F571	6834F573	6834F575	6834F577	6834F579
2 F 2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F572	6834F574	6834F576	6834F578
Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U1	U2
Lungs (12)	Status >	142	142	142	142	142	142	142
40-Alveolar histiocytosis	Operator >	1	1	-	-	-	-	-
30-Congestion	s	-	-	-	-	1	-	-
71-Fibrosis, focal	s	-	-	-	-	-	-	-
182-Hemorrhage	s	-	-	-	-	-	2=	-
177-Inflammation, acute	s	-	-	-	-	-	-	1
72-Inflammation, mixed	s	-	-	-	-	-	-	-
236-Inflammation, granulomatous	s	-	-	-	-	-	-	-
10-Hyperplasia, alv. epi. focal	s	-	-	-	-	-	-	-
214-N-Carcinoma, metastatic	s	-	-	-	-	-	-	-
11-N-Leukemia, monuc - cap invol	s	-	1=	-	1	-	2	1
74-N-Leukemia, monuc - inv invol	s	-	-	-	-	-	-	2
204-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
Trachea (4)	Status >	142	142	142	142	142	142	142
22-Inflammation, acute	Operator >	-	-	-	-	-	-	-
75-Inflammation, mixed	s	-	-	-	-	-	-	-
76-Hyperplasia	s	-	-	-	-	-	-	-
238-N-Leukemia, monuc	s	-	-	-	-	-	-	1
Bronchial (TBLN) (3)	Status >	142	142	142	142	142	142	142
21-Hemorrhage	Operator >	-	-	142	142	-	-	142
297-Inflammation, mixed	s	-	-	-	-	-	-	-
62-N-Leukemia, monuc	s	-	1=	-	-	-	-	-
Thyroid glands (8)	Status >	142	142	142	142	142	142	142
79-Cyst, follicular	Operator >	-	-	142	142	-	-	-
77-Hyperplasia, C-cell, focal	p	-	-	-	-	-	-	-
81-Hyperplasia, follicular cell	s	-	-	1	4	-	-	-
35-B-Adenoma, C-cell	s	-	-	-	-	-	-	-
78-B-Adenoma, follicular cell	s	-	1=	-	-	-	-	-
174-M-Carcinoma, C-cell	s	-	-	-	-	-	-	-
80-M-Carcinoma, follicular cell	s	-	-	-	-	-	-	-
178-M-Leukemia, monuc	s	-	-	-	-	-	-	-
Parathyroid (2)	Status >	142	142	142	142	142	142	142
241-Hyperplasia, focal	Operator >	-	-	m	142	142	mH	mH
296-B-Adenoma	s	-	-	-	-	-	-	142
Aorta (1)	Status >	142	142	142	142	142	142	142
83-N-Leukemia, monuc - inv invol	Operator >	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6834F567	6834F569	6834F571	6834F573	6834F575	6834F577	6834F579
2 F 2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F572	6834F574	6834F576	6834F578
Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U1	U2
	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142
12-Metaplasia, squamous	Operator >	s	-	-	-	2	-	-
1-Hyperplasia	s	-	1	-	2	-	-	-
23-Inflammation, acute	s	-	-	-	-	-	-	-
42-Inflammation, mixed	s	-	2	2	2	2	1	1
53-Inflammation, chronic	s	-	-	-	-	-	-	-
Salivary gland (1)	Status >	142	142	142	142	142	142	142
43-M-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Mandibular LN (2)	Status >	142	142	142	142	142	142	142
89-Hemorrhage	Operator >	s	-	-	-	-	2	-
44-N-Leukemia, monuc	s	-	-	1=	1	-	-	-
Liver (15)	Status >	142	142	142	142	142	142	142
45-Angiectasis	Operator >	s	-	-	-	-	-	-
158-Congestion	s	-	-	-	-	-	-	-
90-Fatty Change	s	-	-	1	-	-	-	-
150-Foci cell alter, basophilic	s	-	-	-	-	-	-	-
92-Hdn	p	P=	-	-	-	P=	P=	P=
4-Necrosis	s	3=	-	-	-	-	-	-
230-Thrombus	s	-	-	-	-	-	-	-
13-Vacuoliz cyto	s	-	-	-	-	-	-	-
24-Inflammation, acute	s	-	-	-	-	-	-	-
54-Inflammation, chronic	s	-	1	-	-	-	-	1
46-Hyperplasia, biliary	s	2	-	2	-	2	-	1
47-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-
91-B-Adenoma, hepatocellular	s	-	-	-	-	-	-	-
205-M-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
14-M-Leukemia, monuc	s	-	1	2	2=	2=	2=	1=
Spleen (5)	Status >	142	142	142	142	142	142	142
96-Fibrosis	Operator >	s	-	-	-	-	-	-
226-Hemorrhage	s	-	-	-	-	-	-	-
97-Necrosis	s	-	-	-	4=	-	-	-
15-M-Leukemia, monuc	s	-	1=	2=	2=	2=	2=	1=
298-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6834F567	6834F569	6834F571	6834F573	6834F575	6834F577	6834F579
2 F 2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F572	6834F574	6834F576	6834F578
Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U1	U2
								6834F580
								FS
								FS

Kidneys (9)	Status >	142	142	142	142	142	142	142	142	142	142
211-Atrophy	Operator >	-	-	-	-	-	-	-	-	-	-
149-Cyst	s	-	-	-	-	-	-	-	-	-	-
209-Degen, hyaline droplet	s	-	-	-	-	-	-	-	-	-	-
210-Dilatation	s	-	-	-	-	-	-	-	-	-	-
228-Infarct	s	-	-	-	-	-	-	-	-	-	-
16-Nephropathy, chronic	s	-	1	1	1	1	1	1	2	1	1
6-Pigment accum, tub epi	s	-	-	-	-	-	-	-	-	-	-
98-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-
299-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-
Heart (5)	Status >	142	142	142	142	142	142	142	142	142	142
100-Degen, myocyte	Operator >	-	-	-	-	-	-	-	-	-	-
101-Fibrosis	s	-	-	-	-	-	-	-	-	-	-
175-Thrombus	s	-	-	-	-	-	-	-	-	-	-
36-Inflammation, focal, chronic	s	1	1	1	1	1	1	1	1	1	1
48-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-
Stomach (4)	Status >	142	142	142	142	142	142	142	142	142	142
268-Ulcer	Operator >	-	-	-	-	-	-	-	-	-	-
103-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-
217-M-Carcinoma, metastatic	s	-	-	-	-	-	-	-	-	-	-
220-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-
Cecum (1)	Status >	142	142	142	142	142	142	142	142	142	142
104-N-Leukemia, monuc	Operator >	-	-	-	-	-	-	-	-	-	-
Urinary bladder (4)	Status >	142	142	142	142	142	142	142	142	142	142
186-Hemorrhage	Operator >	-	-	-	-	-	-	-	-	-	-
56-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-
166-Hyperplasia, papillary	s	-	-	-	-	-	-	-	-	-	-
106-M-Leukemia, monuc	s	-	-	-	-	-	-	-	-	-	-
Duodenum (1)	Status >	142	142	142	142	142	142	142	142	142	142
275-Inflammation, acute	Operator >	-	-	-	-	-	-	-	-	-	-
Jejunum	s	-	-	-	-	-	-	-	-	-	-
	Status >	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142

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Group Sex Dosage	Animal >	6834F567	6834F569	6834F571	6834F573	6834F575	6834F577	6834F579
2 F 2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F572	6834F574	6834F576	6834F578
Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U1	FS
Ileum (1)	Status >	142	142	142	142	142	142	142
181-N-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Colon	Status >	U	U	U	U	U	U	U
Pancreas (2)	Operator >	142	142	142	142	142	142	142
212-Fibrosis	Status >	-	-	-	H	-	*H	-
110-M-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Rectum (1)	Status >	142	142	142	142	142	142	142
276-Metaplasia, squamous	Operator >	-	-	-	-	-	-	-
Adrenal glands (9)	Status >	142	142	142	142	142	142	142
161-Cyst	Operator >	-	-	-	-	-	-	-
113-Degen, cytopl vacuol	Status >	-	-	-	-	-	-	-
170-Necrosis	Operator >	-	-	-	-	-	-	-
118-Thrombus	Status >	-	-	-	-	-	-	-
117-Hyperplasia, cortical, focal	Operator >	-	-	-	-	-	-	-
64-Hyperplasia, focal	Status >	-	-	-	-	-	-	-
116-B-Pheochrom, bgn	Operator >	-	-	-	-	1=	-	-
216-M-Carcinoma, metastatic	Status >	-	-	-	-	-	-	-
112-M-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Uterus (11)	Status >	142	142	142	142	142	142	142
277-Angiectasis	Operator >	-	-	-	-	-	-	-
7-Dilatation	Status >	-	-	-	-	-	-	-
167-Intussusception	Operator >	-	-	-	-	-	-	-
162-Inflammation, mixed	Status >	-	-	-	-	-	-	-
49-Inflammation, chronic	Operator >	-	-	-	-	-	-	-
20-Hyperplasia, cystic endom	Status >	-	-	2	-	-	-	-
286-B-Adenoma, endometrial	Operator >	-	-	-	-	-	-	-
9-B-Polyp, endometrial stromal	Status >	1=	-	-	-	1=	-	-
213-M-Adenocarcinoma, endometr	Operator >	-	-	-	-	-	2=	-
279-M-Leiomyosar	Status >	-	-	-	-	-	-	-
165-M-Leukemia, monuc	Operator >	-	-	-	-	-	1	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
120-Hemorrhage	Operator >	-	-	-	-	-	-	-
173-Inflammation, chronic	Status >	-	-	-	-	-	-	-
206-N-Sarcoma, histiocytic	Operator >	-	-	-	-	-	-	-
32-N-Leukemia, monuc	Status >	-	-	-	-	-	-	-
	Operator >	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6834F567	6834F569	6834F571	6834F573	6834F575	6834F577	6834F579
2 F 2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F572	6834F574	6834F576	6834F578
Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U1	U2
								6834F580
								FS

Ovaries (9)	Status >	142	142	142	142	142	142	142	142	142
284-Congestion	Operator >	-	-	-	-	-	-	-	-	-
154-Cyst, bursa	s	-	-	-	-	-	-	-	-	-
234-Cyst, epithelial	p	-	-	-	-	-	-	-	-	-
293-Cyst, follicular	p	-	-	-	-	-	-	-	-	-
291-Cyst, rete ovarii	s	-	-	-	-	-	-	-	-	-
25-Hemorrhage	s	-	-	-	-	-	-	-	-	-
290-Necrosis, mesenteric fat	s	-	-	-	-	-	-	-	-	-
207-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-
163-M-Leukemia, monoc	s	-	2=	-	-	-	-	-	-	-
Sciatic nerve	Status >	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142
Muscle, skeletal (1)	Status >	142	142	142	142	142	142	142	142	142
208-N-Sarcoma, histiocytic	Operator >	-	-	-	-	-	-	-	-	-
Mammary gland (6)	Status >	142	142	142	*H	142	142	142	142	142
159-Ectasia	Operator >	-	-	-	-	-	-	-	-	-
190-Hyperplasia, lobular	s	-	-	-	-	-	-	-	-	-
156-B-Fibroadenoma	s	-	1=	-	-	-	-	-	-	-
70-B-Fibroma	s	-	-	1=	-	-	-	-	-	-
235-M-Adenocarcinoma	s	-	-	-	-	-	-	-	-	-
224-M-AdenoCA arising in fibroad	s	-	-	-	-	-	-	-	-	-
Skin (3)	Status >	142	142	142	142	142	142	142	142	142
252-Cyst, epith inc	Operator >	-	-	-	-	-	-	-	-	-
122-Fibrosis	p	-	-	-	-	-	-	-	-	-
253-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-
Brain (6)	Status >	142	142	142	142	142	142	142	142	142
26-Compression	Operator >	-	-	2=	-	-	-	-	-	-
192-Hemorrhage	s	-	-	-	-	-	-	-	-	-
155-Metaplasia, osseous, meninge	s	-	-	-	-	-	-	-	-	-
33-Necrosis	s	-	-	-	-	-	-	-	-	-
194-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-
256-M-Astrocytoma, malignant	s	-	-	-	-	-	-	-	-	2
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142	142	142
127-Atrophy	Operator >	-	-	4=	-	-	-	-	-	-
129-Atrophy, retinal, unilat	s	-	-	-	-	-	-	-	-	-
130-Cataract	p	-	-	-	-	-	-	-	-	-
133-Metaplasia, osseous, sclera	s	-	-	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6834F567	6834F569	6834F570	6834F571	6834F572	6834F573	6834F574	6834F575	6834F576	6834F577	6834F579
2 F 2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F571	6834F572	6834F573	6834F574	6834F575	6834F576	6834F577	6834F579
Tissue/diagnosis	Death code >	U2	U2	FS	FS	U2	FS	FS	FS	U1	U2	FS
Eyes/optic nerve (7)	Status >											
58-Mineralization, corneal str	Operator >	142	142	142	142	142	142	142	142	142	142	142
126-Mineralization, scleral s	s	-	-	-	-	-	-	-	-	2	-	-
131-Neovascularization, corneal s	s	-	-	-	-	-	-	-	-	-	-	-
Bone, femur (1)	Status >											
179-New bone, endosteal	Operator >	142	142	142	142	142	142	142	142	142	142	142
Spinal cord (3)	Status >											
27-Degen, white matter	Operator >	142	142	142	142	142	142	142	142	142	142	142
197-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-
231-Necrosis, neuronal	s	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 1 (5)	Status >											
260-Degeneration,hyal-resp epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142
134-Inflammation, mixed s	s	-	-	-	-	1	-	-	-	-	-	-
34-Inflammation-nasolac duct s	s	-	-	-	2	-	-	-	-	-	-	-
136-Inflammation-resp epith s	s	-	-	-	1	-	-	-	-	-	-	3
199-Hyperplasia-resp epith s	s	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 2 (6)	Status >											
18-Degeneration,hyaline-olf epi s	Operator >	142	142	142	142	142	142	142	142	142	142	142
261-Degeneration,hyaline-olf epi s	s	-	-	-	-	-	-	-	-	2	-	-
176-Metaplasia, sec-olfact epith s	s	-	-	-	-	-	-	-	-	-	-	-
270-Metaplasia, squ-olfact epith s	s	-	-	-	-	-	-	-	-	-	-	-
138-Inflammation, mixed s	s	-	2	2	-	-	-	-	-	-	-	-
227-Hyperplasia-resp epith s	s	-	2	2	-	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >											
295-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142
19-Degeneration,hyaline-olf epi s	s	-	-	-	-	-	-	-	-	2	-	-
232-Degeneration-resp epith s	s	-	-	-	-	-	-	-	-	-	-	-
142-Inflammation, mixed s	s	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 4 (3)	Status >											
285-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142
164-Degeneration,hyaline-olf epi s	s	-	-	-	-	-	-	-	-	-	-	-
144-Inflammation, mixed s	s	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6834F567	6834F569	6834F571	6834F573	6834F575	6834F577	6834F579
2 F 2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F572	6834F574	6834F576	6834F578
Tissue/diagnosis	Death code >	U2 U2	U2 FS	FS FS	U2 U2	FS FS	U2 U2	FS FS
Cervix (3)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >		142	142	142	142	142	142
168-B-Polyp, endometrial stromal								
289-M-Leiomyosarcoma				1=				
269-N-Adenocarcinoma, endometr							1=	
Clitoral gland (3)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >							
294-B-Adenoma								
61-M-Carcinoma, squamous cell								
271-N-Adenocarcinoma								
Lymph node other (3)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >		142					
60-Hemorrhage								
59-Infiltration, histiocytic s								
65-N-Leukemia, monuc								
1=								
Popliteal LN (1)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >		142					
66-N-Leukemia, monuc								
1=								
Iliac LN (1)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >		142				142	
67-N-Leukemia, monuc								
1=								
Pancreatic LN (1)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >			142	142		142	142
68-N-Leukemia, monuc								
1=								
Mediastinal LN (7)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
29-Hemorrhage								
3-Infiltration, histiocytic s								
2-Pigmentation								
273-B-Thymoma								
219-M-Carcinoma, metastatic								
265-N-Sarcoma, histiocytic								
41-N-Leukemia, monuc								
1=								
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
160-Angiectasis								
37-Cyst								
38-Degen								
148-Hemorrhage								
203-Necrosis								
57-Hyperplasia, focal								
31-B-Adenoma, pars distalis								
1=								

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Group Sex Dosage	Animal >	6834F567	6834F569	6834F570	6834F571	6834F572	6834F573	6834F574	6834F575	6834F576	6834F577	6834F578	6834F579
2 F 2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F571	6834F572	6834F573	6834F574	6834F575	6834F576	6834F577	6834F578	6834F579
Tissue/diagnosis	Death code >	U2	U2	FS	U2	U2	FS	FS	FS	U1	U2	U2	FS
Pituitary gland (10)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
288-M-Carcinoma	s	-	-	-	-	-	-	-	-	-	-	-	-
146-M-Leukemia, monoc	s	-	-	-	-	-	-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >												
152-Inflammation, mixed	s												
153-Hyperplasia/hyperkeratosis	s												
Bone, rib (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >												
Mesentery (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >												
218-M-Carcinoma, metastatic	p												
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >												
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >												
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >												
Bone, other (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
272-Fracture	Operator >												
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
278-Pigment	Operator >												
Vagina (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >												

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Group	Sex	Dosage	Animal >	6834F567	6834F569	6834F571	6834F573	6834F575	6834F577	6834F579
2	F	2 g/m3	Animal >	6834F566	6834F568	6834F570	6834F572	6834F574	6834F576	6834F578
		Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U1	U2
		Tiss.not specifi	Status >	M	M	M	M	M	M	M
			Operator >							



Group Sex Dosage	Animal >	6834F582	6834F584	6834F586	6834F588	6834F590	6834F592	6834F594
2 F 2 g/m3	Animal >	6834F581	6834F583	6834F585	6834F587	6834F589	6834F591	6834F593
Tissue/diagnosis	Death code >	U2	U2	FS	FS	U2	FS	U1
	Status >	U	U			U	U	U
	Operator >	142	142			142	142	142
	Status >							
	Operator >	142	142	142	142	142	142	142
12-Metaplasia, squamous	s	-	1	-	-	-	1	-
1-Hyperplasia	s	-	1	-	-	-	-	1
23-Inflammation, acute	s	-	-	-	-	-	-	-
42-Inflammation, mixed	s	1	2	1	2	1	1	1
53-Inflammation, chronic	s	-	-	-	-	-	-	1
Salivary gland (1)	Status >							
	Operator >	142	142			142	142	142
43-M-Leukemia, monuc		-	-			-	-	-
Mandibular LN (2)	Status >		*					
	Operator >	142	142			142	142	142
89-Hemorrhage	s	-	-			1	-	-
44-N-Leukemia, monuc		-	-			-	-	-
Liver (15)	Status >							
	Operator >	142	142		142			
45-Angiectasis	s	-	-			-	-	-
158-Congestion	s	-	-			-	-	-
90-Fatty Change	s	-	-			-	-	-
150-Foci cell alter, basophilic	s	-	-			-	-	-
92-Hdn	p	-	-			-	-	-
4-Necrosis	s	-	1			2=	-	-
230-Thrombus	s	-	-			-	-	-
13-Vacuoliz cyto	s	2	-			-	-	-
24-Inflammation, acute	s	-	-			-	-	-
54-Inflammation, chronic	s	-	1			-	-	-
46-Hyperplasia, biliary	s	2	1			2	1	1
47-Hyperplasia, hepato, regen	s	-	-			-	-	-
91-B-Adenoma, hepatocellular		-	-			-	-	-
205-M-Sarcoma, histiocytic		2=	-			2=	1=	-
14-M-Leukemia, monuc		-	-			-	-	-
Spleen (5)	Status >							
	Operator >	142	142			142	142	142
96-Fibrosis	s	-	-			-	-	-
226-Hemorrhage	s	-	-			-	-	-
97-Necrosis	s	-	-			-	-	-
15-M-Leukemia, monuc		2=	-			2=	-	-
298-N-Sarcoma, histiocytic		-	-			-	-	-

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Group Sex Dosage	Animal >	6834F582	6834F584	6834F586	6834F588	6834F590	6834F592	6834F594
2 F 2 g/m3	Animal >	6834F581	6834F583	6834F585	6834F587	6834F589	6834F591	6834F593
Tissue/diagnosis	Death code >	U2	FS	FS	FS	U2	FS	U1
	Animal >	6834F582	6834F584	6834F586	6834F588	6834F590	6834F592	6834F594
	Death code >	U2	FS	FS	FS	U2	FS	U2

Kidneys (9)	Status >	142	142	142	142	142	142	142	142	142	142
211-Atrophy	Operator >	-	-	-	-	-	-	-	-	-	-
149-Cyst	s	-	-	-	-	-	-	-	-	-	-
209-Degen, hyaline droplet	s	-	-	-	-	-	-	-	-	-	-
210-Dilatation	s	-	-	-	-	-	-	-	-	-	-
228-Infarct	s	-	-	-	-	-	-	-	-	-	-
16-Nephropathy, chronic	s	2	1	-	-	1	-	1	-	-	-
6-Pigment accum, tub epi	s	3	-	-	-	-	-	-	-	-	-
98-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-
299-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-	-	-
Heart (5)	Status >	142	142	142	142	142	142	142	142	142	142
100-Degen, myocyte	Operator >	-	-	-	-	-	-	-	-	-	-
101-Fibrosis	s	-	-	-	-	-	-	-	-	-	-
175-Thrombus	s	-	-	-	-	-	-	-	-	-	-
36-Inflammation, focal, chronic	s	1	-	-	-	1	-	-	-	-	-
48-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-
Stomach (4)	Status >	142	142	142	142	142	142	142	142	142	142
268-Ulcer	Operator >	-	-	-	-	-	-	-	-	-	-
103-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-
217-M-Carcinoma, metastatic	s	-	-	-	-	-	-	-	-	-	-
220-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-
Cecum (1)	Status >	142	142	142	142	142	142	142	142	142	142
104-N-Leukemia, monuc	Operator >	-	-	-	-	-	-	-	-	-	-
Urinary bladder (4)	Status >	142	142	142	142	142	142	142	142	142	142
186-Hemorrhage	Operator >	-	-	-	-	-	-	-	-	-	-
56-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-
166-Hyperplasia, papillary	s	-	-	-	-	-	-	-	-	-	-
106-M-Leukemia, monuc		-	-	-	-	-	-	-	-	-	-
Duodenum (1)	Status >	142	142	142	142	142	142	142	142	142	142
275-Inflammation, acute	Operator >	3	-	-	-	-	-	-	-	-	-
Jejunum	s	-	-	-	-	-	-	-	-	-	-
	Status >	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142

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Group Sex Dosage	Animal >	6834F582	6834F584	6834F586	6834F588	6834F590	6834F592	6834F594
2 F 2 g/m3	Animal >	6834F581	6834F583	6834F585	6834F587	6834F589	6834F591	6834F593
Tissue/diagnosis	Death code >	U2	FS	FS	FS	U2	FS	U1
Ileum (1)	Status >	142	142	142	142	142	142	142
181-N-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Colon	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Pancreas (2)	Status >	142	142	142	142	142	142	142
212-Fibrosis	Operator >	-	-	-	-	-	-	-
110-M-Leukemia, monuc	Status >	-	-	-	-	-	-	-
Rectum (1)	Status >	142	142	142	142	142	142	142
276-Metaplasia, squamous	Operator >	2	-	-	-	-	-	-
Adrenal glands (9)	Status >	142	142	142	142	142	142	142
161-Cyst	Operator >	-	-	-	-	-	-	-
113-Degen, cytopl vacuol	S	-	-	-	-	-	-	-
170-Necrosis	S	-	-	-	-	-	-	-
118-Thrombus	S	-	-	-	-	-	-	-
117-Hyperplasia, cortical, focal	S	-	-	-	-	-	-	-
64-Hyperplasia, focal	p	-	-	-	-	-	-	-
116-B-Pheochrom, bgn	p	-	-	-	-	-	-	-
216-M-Carcinoma, metastatic	p	-	-	-	-	-	-	-
112-M-Leukemia, monuc	p	-	-	-	-	-	-	-
Uterus (11)	Status >	142	142	142	142	142	142	142
277-Angiectasis	Operator >	-	-	-	-	-	-	-
7-Dilatation	S	-	-	-	-	-	-	-
167-Intussusception	S	-	-	-	-	-	-	-
162-Inflammation, mixed	p	-	-	-	-	P=	-	-
49-Inflammation, chronic	S	-	-	-	-	-	-	-
20-Hyperplasia, cystic endom	S	-	-	-	-	-	-	-
286-B-Adenoma, endometrial	S	-	-	-	-	-	-	-
9-B-Polyp, endometrial stromal	S	-	-	-	-	-	-	-
213-M-Adenocarcinoma, endometr	2=	-	-	-	-	1=	-	1=
279-M-Leiomyosar	-	-	-	-	-	-	-	-
165-M-Leukemia, monuc	-	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
120-Hemorrhage	Operator >	-	-	-	-	-	-	-
173-Inflammation, chronic	S	-	-	-	-	-	-	-
206-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
32-N-Leukemia, monuc	S	1	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6834F582	6834F584	6834F586	6834F588	6834F590	6834F592	6834F594
2	F	2 g/m3	Animal >	6834F581	6834F583	6834F585	6834F587	6834F589	6834F591	6834F593
		Tissue/diagnosis	Death code >	U2	FS	FS	FS	U2	FS	U1
		Ovaries (9)	Status >	142	142	142	142	142	142	142
		284-Congestion	Operator >	-	-	-	-	-	-	-
		154-Cyst, bursa	s	-	-	-	-	-	-	-
		234-Cyst, epithelial	p	-	-	-	-	-	-	-
		293-Cyst, follicular	p	-	-	-	-	-	-	-
		291-Cyst, rete ovarii	s	-	-	-	-	-	-	-
		25-Hemorrhage	s	-	-	-	-	-	-	-
		290-Necrosis, mesenteric fat	s	-	-	-	-	-	-	-
		207-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
		163-M-Leukemia, monoc	s	-	-	-	-	-	-	-
		Sciatic nerve	Status >	U	U	U	U	U	U	U
			Operator >	142	142	142	142	142	142	142
		Muscle, skeletal (1)	Status >	142	142	142	142	142	142	142
		208-N-Sarcoma, histiocytic	Operator >	-	-	-	-	-	-	-
		Mammary gland (6)	Status >	142	142	142	142	142	142	H
		159-Ectasia	s	-	-	-	-	-	-	-
		190-Hyperplasia, lobular	s	-	-	-	-	-	-	-
		156-B-Fibroadenoma	s	-	-	-	-	-	-	2=
		70-B-Fibroma	s	-	-	-	-	-	-	-
		235-M-Adenocarcinoma	s	-	-	-	-	-	-	-
		224-M-AdenoCA arising in fibroAD	s	-	-	-	-	-	-	-
		Skin (3)	Status >	142	142	142	142	142	142	142
		252-Cyst, epith inc	Operator >	-	-	-	-	-	-	-
		122-Fibrosis	p	-	-	-	-	-	-	-
		253-Inflammation, mixed	s	-	-	-	-	-	-	-
		Brain (6)	Status >	142	142	142	142	142	142	142
		26-Compression	Operator >	-	-	-	-	-	-	-
		192-Hemorrhage	s	-	-	-	-	-	-	-
		155-Metaplasia, osseous, meninge	s	-	-	-	-	-	-	-
		33-Necrosis	s	-	-	-	-	-	-	-
		194-Inflammation, chronic	s	-	-	-	-	-	-	-
		256-M-Astrocytoma, malignant	s	-	-	-	-	-	-	-
		Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142
		127-Atrophy	Operator >	-	-	-	-	-	-	-
		129-Atrophy, retinal, unilat	s	-	-	-	-	-	-	-
		130-Cataract	s	-	-	-	-	-	-	-
		133-Metaplasia, osseous, sclera	p	-	-	-	-	-	-	-
			s	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6834F582	6834F584	6834F586	6834F588	6834F590	6834F592	6834F594
2 F 2 g/m3	Animal >	6834F581	6834F583	6834F585	6834F587	6834F589	6834F591	6834F593
Tissue/diagnosis	Death code >	U2	FS	FS	FS	U2	FS	U1
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142
58-Mineralization, corneal str s	Operator >	-	-	-	-	-	-	-
126-Mineralization, scleral s	s	-	-	-	-	2	-	-
131-Neovascularization, corneal s	s	-	-	-	-	-	-	-
Bone, femur (1)	Status >	142	142	142	142	142	142	H
179-New bone, endosteal	Operator >	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142
27-Degen, white matter	Operator >	-	-	-	-	-	-	-
197-Hemorrhage	s	-	-	-	-	-	-	-
231-Necrosis, neuronal	s	-	-	-	-	-	-	-
Nose/Turbinates 1 (5)	Status >	142	142	142	142	142	142	142
260-Degeneration,hyal-resp epith s	Operator >	1	-	2	-	1	2	-
134-Inflammation, mixed s	s	-	-	-	-	-	-	3
34-Inflammation-nasolac duct s	s	-	3	2	-	-	-	3
136-Inflammation-resp epith s	s	-	-	-	-	-	-	-
199-Hyperplasia-resp epith s	s	-	-	1	-	-	-	-
Nose/Turbinates 2 (6)	Status >	142	142	142	142	142	142	142
18-Degeneration,hyaline-olf epith s	Operator >	1	-	2	-	2	-	-
261-Degeneration,hyaline-olf epith s	s	-	-	-	-	-	-	-
176-Metaplasia, sec-olfact epith s	s	-	-	-	-	-	-	-
270-Metaplasia, squ-olfact epith s	s	-	-	-	-	-	-	-
138-Inflammation, mixed s	s	-	-	-	-	-	-	1
227-Hyperplasia-resp epith s	s	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
295-Degeneration-olfact epith s	Operator >	-	-	-	-	-	-	-
19-Degeneration,hyaline-olf epith s	s	-	-	-	-	-	-	-
232-Degeneration-resp epith s	s	-	-	-	-	2	-	-
142-Inflammation, mixed s	s	-	-	-	-	2	-	-
Nose/Turbinates 4 (3)	Status >	142	142	142	142	142	142	142
285-Degeneration-olfact epith s	Operator >	-	-	-	-	-	-	-
164-Degeneration,hyaline-olf epith s	s	-	-	-	-	-	-	-
144-Inflammation, mixed s	s	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6834F582	6834F584	6834F586	6834F588	6834F590	6834F592	6834F594
2 F 2 g/m3	Animal >	6834F581	6834F583	6834F585	6834F587	6834F589	6834F591	6834F593
Tissue/diagnosis	Death code >	U2	FS	FS	FS	U2	FS	U1
Cervix (3)	Status >	M	M	M	M	M	M	M
	Operator >							
168-B-Polyp, endometrial stromal								
289-M-Leiomyosarcoma								
269-N-Adenocarcinoma, endometr								
Clitoral gland (3)	Status >	M	M	M	M	M	M	M
	Operator >							
294-B-Adenoma								
61-M-Carcinoma, squamous cell								
271-N-Adenocarcinoma								
Lymph node other (3)	Status >	M	M	M	M	M	M	M
	Operator >							
60-Hemorrhage								
59-Infiltration, histiocytic s								
65-N-Leukemia, monuc								
Popliteal LN (1)	Status >	M	M	M	M	M	M	M
	Operator >							
66-N-Leukemia, monuc								
Iliac LN (1)	Status >	M	M	M	M	M	M	M
	Operator >							
67-N-Leukemia, monuc								
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M
	Operator >							
68-N-Leukemia, monuc								
Mediastinal LN (7)	Status >	142	142	142	142	142	142	142
	Operator >		2					
29-Hemorrhage	s							
3-Infiltration, histiocytic s								
2-Pigmentation								
273-B-Thymoma								
219-M-Carcinoma, metastatic								
265-N-Sarcoma, histiocytic								
41-N-Leukemia, monuc								
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
	Operator >							
160-Angiectasis	s							
37-Cyst	s							
38-Degen	s							
148-Hemorrhage	s							
203-Necrosis	s							
57-Hyperplasia, focal	s							
31-B-Adenoma, pars distalis								

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2 F 2 g/m3	Animal >	6834F581	6834F583	6834F585	6834F587	6834F589	6834F591	6834F593
Tissue/diagnosis	Death code >	U2	FS	FS	FS	U2	FS	U1
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-
288-M-Carcinoma	s	-	-	-	-	-	-	-
146-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >							
152-Inflammation, mixed	s							
153-Hyperplasia/hyperkeratosis	s							
Bone, rib (1)	Status >	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >							
Mesentery (2)	Status >	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >							
218-M-Carcinoma, metastatic	p							
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >							
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >							
Mediastinum (1)	Status >	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >							
Bone, other (1)	Status >	M	M	M	M	M	M	M
272-Fracture	Operator >							
Harderian gland (1)	Status >	M	M	M	M	M	M	M
278-Pigment	Operator >							
Vagina (1)	Status >	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >							

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Group	Sex	Dosage	Animal >	6834F582	6834F584	6834F586	6834F588	6834F590	6834F592	6834F594
2	F	2 g/m3	Animal >	6834F581	6834F583	6834F585	6834F587	6834F589	6834F591	6834F593
		Tissue/diagnosis	Death code >	U2	FS	FS	FS	U2	FS	U1
		Tiss.not specifi	Status >	M	M	M	M	M	M	M
			Operator >							

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Group Sex Dosage	Animal >	6834F597	6834F599	6834F596	6834F598	6834F600
2 F 2 g/m3	Animal >	FS	FS	FS	FS	FS
Tissue/diagnosis	Death code >					
Lungs (12)	Status >					
40-Alveolar histiocytosis	Operator >	142	142	142	142	142
30-Congestion	s	-	-	-	-	-
71-Fibrosis, focal	s	-	-	-	-	-
182-Hemorrhage	s	-	-	-	-	-
177-Inflammation, acute	s	-	-	-	-	-
72-Inflammation, mixed	s	-	-	-	-	-
236-Inflammation, granulomatous	s	-	-	-	-	-
10-Hyperplasia, alv. epi. focal	s	-	-	-	-	-
214-N-Carcinoma, metastatic	s	-	-	-	-	-
11-N-Leukemia, monuc - cap invol	s	-	-	-	2=	1
74-N-Leukemia, monuc - inv invol	s	-	-	-	-	-
204-N-Sarcoma, histiocytic	s	-	-	-	-	-
Trachea (4)	Status >					
22-Inflammation, acute	Operator >	142	142	142	142	142
75-Inflammation, mixed	s	-	-	-	-	-
76-Hyperplasia	s	-	-	-	-	-
238-N-Leukemia, monuc	s	-	-	-	-	-
Bronchial (TBLN) (3)	Status >					
21-Hemorrhage	Operator >				142	
297-Inflammation, mixed	s	-	-	-	-	-
62-N-Leukemia, monuc	s	-	-	-	1	-
Thyroid glands (8)	Status >					
79-Cyst, follicular	Operator >				142	
77-Hyperplasia, C-cell, focal	p	-	-	-	-	-
81-Hyperplasia, follicular cell	s	-	-	-	-	-
35-B-Adenoma, C-cell	s	-	-	-	-	-
78-B-Adenoma, follicular cell	s	-	-	-	-	-
174-M-Carcinoma, C-cell	s	-	-	-	-	-
80-M-Carcinoma, follicular cell	s	-	-	-	-	-
178-M-Leukemia, monuc	s	-	-	-	-	-
Parathyroid (2)	Status >					
241-Hyperplasia, focal	Operator >				m	
296-B-Adenoma	s	-	-	-	142	-
Aorta (1)	Status >					
83-N-Leukemia, monuc - inv invol	Operator >				142	-

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Group	Sex	Dosage	Animal >	6834F597	6834F599	6834F600
2	F	2 g/m3	Animal >	6834F596	6834F598	6834F600
Tissue/diagnosis			Death code >	FS	FS	FS
Esophagus			Status >		U	
			Operator >		142	
Larynx (5)			Status >			
12-Metaplasia, squamous			Operator >	142	142	142
1-Hyperplasia			s	-	-	2
23-Inflammation, acute			s	-	-	-
42-Inflammation, mixed			s	2	1	2
53-Inflammation, chronic			s	-	-	-
Salivary gland (1)			Status >			
43-M-Leukemia, monuc			Operator >		142	-
Mandibular LN (2)			Status >			
89-Hemorrhage			Operator >	142		142
44-N-Leukemia, monuc			s	-	-	-
				1=	-	-
Liver (15)			Status >			
45-Angiectasis			Operator >	142		142
158-Congestion			s	-	-	-
90-Fatty Change			s	-	-	-
150-Foci cell alter, basophilic			s	-	-	-
92-Hdn			p	P=	-	-
4-Necrosis			s	-	-	-
230-Thrombus			s	-	-	-
13-Vacuoliz cyto			s	-	-	-
24-Inflammation, acute			s	-	-	-
54-Inflammation, chronic			s	-	-	-
46-Hyperplasia, biliary			s	-	2	2
47-Hyperplasia, hepato, regen			s	-	-	-
91-B-Adenoma, hepatocellular				-	-	-
205-M-Sarcoma, histiocytic				-	-	-
14-M-Leukemia, monuc				1	2=	-
Spleen (5)			Status >			
			Operator >		142	
96-Fibrosis			s	-	-	-
226-Hemorrhage			s	-	-	-
97-Necrosis			s	-	-	2=
15-M-Leukemia, monuc				-	-	-
298-N-Sarcoma, histiocytic				-	-	-

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Group Sex Dosage Animal > 6834F597 6834F599  
2 F 2 g/m3 Animal > 6834F596 6834F598 6834F600  
Tissue/diagnosis Death code > FS FS FS U2 FS FS FS

Kidneys (9)  
Status > 142  
Operator >  
211-Atrophy s  
149-Cyst s  
209-Degen, hyaline droplet s  
210-Dilatation s  
228-Infarct s  
16-Nephropathy, chronic s  
6-Pigment accum, tub epi s  
98-M-Leukemia, monoc  
299-N-Sarcoma, histiocytic

Heart (5)  
Status > 142  
Operator >  
100-Degen, myocyte s  
101-Fibrosis s  
175-Thrombus s  
36-Inflammation, focal, chronic s  
48-M-Leukemia, monoc

Stomach (4)  
Status > 142  
Operator >  
268-Ulcer s  
103-Inflammation, mixed s  
217-M-Carcinoma, metastatic  
220-M-Leukemia, monoc

Cecum (1)  
Status > 142  
Operator >

104-N-Leukemia, monoc  
Urinary bladder (4)  
Status > 142  
Operator >  
186-Hemorrhage s  
56-Inflammation, chronic s  
166-Hyperplasia, papillary s  
106-M-Leukemia, monoc

Duodenum (1)  
Status > 142  
Operator >  
275-Inflammation, acute s  
Jejunum  
Status > U  
Operator > 142

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Group Sex Dosage	Animal >	6834F597	6834F599
2 F 2 g/m3	Animal >	6834F596	6834F600
Tissue/diagnosis	Death code >	FS FS	U2 FS
Ileum (1)	Status >		142
181-N-Leukemia, monuc	Operator >		-
Colon	Status >		U
	Operator >		142
Pancreas (2)	Status >		*H
212-Fibrosis	Operator >		142
110-M-Leukemia, monuc	S		
Rectum (1)	Status >		142
276-Metaplasia, squamous	Operator >		-
Adrenal glands (9)	Status >		142
161-Cyst	Operator >		-
113-Degen, cytopl vacuol	S		-
170-Necrosis	S		-
118-Thrombus	S		-
117-Hyperplasia, cortical, focal	S		-
64-Hyperplasia, focal	p		-
116-B-Pheochrom, bgn			-
216-M-Carcinoma, metastatic			-
112-M-Leukemia, monuc			1=
Uterus (11)	Status >		142
277-Angiectasis	Operator >		-
7-Dilatation	S		-
167-Intussusception	S		-
162-Inflammation, mixed	p		-
49-Inflammation, chronic	S		-
20-Hyperplasia, cystic endom	S		-
286-B-Adenoma, endometrial			-
9-B-Polyp, endometrial stromal			-
213-M-Adenocarcinoma, endometr			-
279-M-Leiomyosar			-
165-M-Leukemia, monuc			-
Mesenteric LN (4)	Status >		142
120-Hemorrhage	Operator >		-
173-Inflammation, chronic	S		-
206-N-Sarcoma, histiocytic	S		-
32-N-Leukemia, monuc			-

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Group	Sex	Dosage	Animal >	6834F597	6834F599
2	F	2 g/m3	Animal >	6834F596	6834F600
Tissue/diagnosis		Death code >	FS	FS	FS
Ovaries (9)		Status >	142		142
284-Congestion		Operator >	-		-
154-Cyst, bursa		s	-		-
234-Cyst, epithelial		p	-		-
293-Cyst, follicular		p	-		-
291-Cyst, rete ovarii		s	-		-
25-Hemorrhage		s	-		-
290-Necrosis, mesenteric fat		s	2=		-
207-N-Sarcoma, histiocytic		s	-		-
163-M-Leukemia, monoc		s	-		-
Sciatic nerve		Status >		U	
		Operator >		142	
Muscle, skeletal (1)		Status >		142	
208-N-Sarcoma, histiocytic		Operator >		-	
Mammary gland (6)		Status >		142	
159-Ectasia		s		-	
190-Hyperplasia, lobular		s		-	
156-B-Fibroadenoma		s		-	
70-B-Fibroma		s		-	
235-M-Adenocarcinoma		s		-	
224-M-AdenoCA arising in fibroAD		s		-	
Skin (3)		Status >		142	
252-Cyst, epith inc		Operator >		-	
122-Fibrosis		p		-	
253-Inflammation, mixed		s		-	
Brain (6)		Status >		142	
26-Compression		Operator >		-	
192-Hemorrhage		s		-	
155-Metaplasia, osseous, meninge		s		-	
33-Necrosis		s		-	
194-Inflammation, chronic		s		-	
256-M-Astrocytoma, malignant		s		-	
Eyes/optic nerve (7)		Status >		142	
127-Atrophy		Operator >		-	
129-Atrophy, retinal, unilat		s		-	
130-Cataract		p		-	
133-Metaplasia, osseous, sclera		s		-	

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Lovelace Respiratory  
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Rat/F344/N

Group Sex Dosage	Animal >	6834F597	6834F599
2 F 2 g/m3	Animal >	6834F596	6834F600
Tissue/diagnosis	Death code >	FS FS FS	U2 FS
Eyes/optic nerve (7)	Status >		
58-Mineralization, corneal	Operator >		142
126-Mineralization, scleral	str s		-
131-Neovascularization, corneal	s		-
Bone, femur (1)	Status >		
179-New bone, endosteal	Operator >		142
Spinal cord (3)	s		-
27-Degen, white matter	Status >		
197-Hemorrhage	Operator >		142
231-Necrosis, neuronal	s		-
Nose/Turbinate 1 (5)	s		-
260-Degeneration, hyal-resp	Status >		
134-Inflammation, mixed	Operator >	142	142 142 142 142
34-Inflammation-nasolac duct	epith s	-	-
136-Inflammation-resp epith	s	3	2 3 2
199-Hyperplasia-resp epith	s	-	-
Nose/Turbinate 2 (6)	s		-
18-Degeneration, hyaline-olf	Status >		
261-Degeneration, hyal-resp	Operator >	142	142 142 142 142
176-Metaplasia, sec-olfact	epith s	-	-
270-Metaplasia, squ-olfact	epith s	-	-
138-Inflammation, mixed	epith s	-	-
227-Hyperplasia-resp epith	s	-	-
Nose/Turbinate 3 (4)	Status >		
295-Degeneration-olfact	Operator >	142	142 142 142 142
19-Degeneration, hyaline-olf	epith s	-	-
232-Degeneration-resp epith	epith s	-	-
142-Inflammation, mixed	s	-	-
Nose/Turbinate 4 (3)	Status >		
285-Degeneration-olfact	Operator >	142	142 142 142 142
164-Degeneration, hyaline-olf	epith s	-	-
144-Inflammation, mixed	epith s	-	-

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Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group Sex Dosage	Animal >	6834F597	6834F599	6834F598	6834F600
2 F 2 g/m3	Animal >	6834F596	6834F598	U2	FS
Tissue/diagnosis	Death code >	FS	FS	U2	FS
Cervix (3)	Status >	M	M	M	M
Operator >					
168-B-Polyp, endometrial stromal					
289-M-Leiomyosarcoma					
269-N-Adenocarcinoma, endometr					
Clitoral gland (3)	Status >	M	M	M	M
Operator >					
294-B-Adenoma					
61-M-Carcinoma, squamous cell					
271-N-Adenocarcinoma					
Lymph node other (3)	Status >	M	M	M	M
Operator >					
60-Hemorrhage					
59-Infiltration, histiocytic	s				
65-N-Leukemia, monuc					
Popliteal LN (1)	Status >	M	M	M	M
Operator >					
66-N-Leukemia, monuc					
Iliac LN (1)	Status >	M	M	M	M
Operator >					
67-N-Leukemia, monuc					
Pancreatic LN (1)	Status >	M	M	M	M
Operator >					
68-N-Leukemia, monuc					
Mediastinal LN (7)	Status >			142	
Operator >					
29-Hemorrhage	s				
3-Infiltration, histiocytic	s				
2-Pigmentation	s				
273-B-Thymoma					
219-M-Carcinoma, metastatic					
265-N-Sarcoma, histiocytic					
41-N-Leukemia, monuc					
Pituitary gland (10)	Status >			142	142
Operator >					
160-Angiectasis	s	3=			
37-Cyst	s	-			
38-Degen	s	-			
148-Hemorrhage	s	-			
203-Necrosis	s	-			
57-Hyperplasia, focal	s	2			
31-B-Adenoma, pars distalis		-			1=

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Lovelace Respiratory  
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Group	Sex	Dosage	Animal >	6834F597	6834F599	6834F598	6834F600
2	F	2 g/m3	Animal >	FS	FS	U2	FS
Tissue/diagnosis			Death code >				
Pituitary gland (10)			Status >				
274-B-Adenoma, pars intermedia			Operator >	142	142	142	142
288-M-Carcinoma				-	-	-	-
146-M-Leukemia, monuc				-	-	-	-
Tail (3)			Status >	M	M	M	M
202-Inflammation, acute			Operator >				
152-Inflammation, mixed			s				
153-Hyperplasia/hyperkeratosis			s				
Bone, rib (1)			Status >	M	M	M	M
157-M-Osteosarcoma			Operator >				
Mesentery (2)			Status >	M	M	M	M
171-Splenic tissue, "accessory"			Operator >				
218-M-Carcinoma, metastatic			p				
Bone, vertebrae (1)			Status >	M	M	M	M
221-N-Leukemia, monuc			Operator >				
Zymbal's gland (1)			Status >	M	M	M	M
223-M-Carcinoma, squamous cell			Operator >				
Mediastinum (1)			Status >	M	M	M	M
233-N-Leukemia, monuc			Operator >				
Bone, other (1)			Status >	M	M	M	M
272-Fracture			Operator >				
Harderian gland (1)			Status >	M	M	M	M
278-Pigment			Operator >				
Vagina (1)			Status >	M	M	M	M
287-M-Leiomyosarcoma			Operator >				

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Lovelace Respiratory  
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Group	Sex	Dosage	Animal >	6834F597	6834F599
2	F	2 g/m3	Animal >	6834F596	6834F600
			Death code >	FS FS	U2 FS
			Tissue/diagnosis		
			Tiss.not specifi	M M M M	M M
			Status >		
			Operator >		

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Lovelace Respiratory  
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Group	Sex	Dosage	Animal	6836G652	6836G653	6836G654	6836G655	6836G656	6836G657	6836G658	6836G659	6836G660	6836G661	6836G662	6836G663	6836G664	
3	F	10 g/m3	Animal >	6836G651	6836G652	6836G653	6836G654	6836G655	6836G656	6836G657	6836G658	6836G659	6836G660	6836G661	6836G662	6836G663	6836G664
Tissue/diagnosis			Death code >	FS	FS	U2	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	U2
Lungs (12)																	
Status >			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
40-Alveolar histiocytosis			s	1	-	-	-	-	-	1	-	-	-	-	-	-	a
30-Congestion			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71-Fibrosis, focal			s	-	-	-	-	-	-	-	-	-	-	-	-	-	2=
182-Hemorrhage			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
177-Inflammation, acute			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72-Inflammation, mixed			s	-	-	3	-	-	-	-	-	-	-	-	-	-	-
236-Inflammation, granulomatous			s	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10-Hyperplasia, alv. epi. focal			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
214-N-Carcinoma, metastatic			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11-N-Leukemia, monoc - cap invol			s	1	-	-	-	1	-	-	-	-	-	-	-	-	-
74-N-Leukemia, monoc - inv invol			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
204-N-Sarcoma, histiocytic			s	-	-	-	-	-	-	-	-	1=	-	-	-	-	-
Trachea (4)																	
Status >			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
22-Inflammation, acute			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75-Inflammation, mixed			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76-Hyperplasia			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
238-N-Leukemia, monoc			s	-	-	3	-	-	-	-	-	-	-	-	-	-	-
Bronchial (TBLN) (3)																	
Status >			Operator >			*H					142						
21-Hemorrhage			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
297-Inflammation, mixed			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62-N-Leukemia, monoc			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thyroid glands (8)																	
Status >			Operator >			142											
79-Cyst, follicular			p	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77-Hyperplasia, C-cell, focal			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81-Hyperplasia, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35-B-Adenoma, C-cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78-B-Adenoma, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
174-M-Carcinoma, C-cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80-M-Carcinoma, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
178-M-Leukemia, monoc			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parathyroid (2)																	
Status >			Operator >			m					142						
241-Hyperplasia, focal			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
296-B-Adenoma			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aorta (1)																	
Status >			Operator >			142											
83-N-Leukemia, monoc - inv invol			s	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6836G652	6836G654	6836G656	6836G658	6836G660	6836G662	6836G664
3 F 10 g/m3	Animal >	6836G651	6836G653	6836G655	6836G657	6836G659	6836G661	6836G663
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Esophagus	Status >		UH			U		U
	Operator >		142			142		142
Larynx (5)	Status >							
12-Metaplasia, squamous	Operator >	142	142	142	142	142	142	142
1-Hyperplasia	s	1	-	1	1	-	-	-
23-Inflammation, acute	s	-	-	1	-	-	-	-
42-Inflammation, mixed	s	-	-	2	1	2	-	1
53-Inflammation, chronic	s	-	-	2	2	-	-	-
Salivary gland (1)	Status >							
43-M-Leukemia, monuc	Operator >		142			142		142
Mandibular LN (2)	Status >							
89-Hemorrhage	Operator >		142			142		142
44-N-Leukemia, monuc	s		-			-		-
Liver (15)	Status >							
45-Angiectasis	Operator >	142		142		142		142
158-Congestion	s							
90-Fatty Change	s			1		2		
150-Foci cell alter, basophilic	s							
92-Hdn	p							
4-Necrosis	s					2		
230-Thrombus	s							
13-Vacuoliz cyto	s							
24-Inflammation, acute	s							
54-Inflammation, chronic	s							
46-Hyperplasia, biliary	s	1		3		2		2
47-Hyperplasia, hepato, regen	s					2		
91-B-Adenoma, hepatocellular								
205-M-Sarcoma, histiocytic								
14-M-Leukemia, monuc				1=		1=		
Spleen (5)	Status >							
96-Fibrosis	Operator >		142			142		142
226-Hemorrhage	s							
97-Necrosis	s							
15-M-Leukemia, monuc	s							
298-N-Sarcoma, histiocytic					2=			

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Lovelace Respiratory  
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Group	Sex	Dosage	Animal	6836G652	6836G653	6836G654	6836G655	6836G656	6836G657	6836G658	6836G659	6836G660	6836G661	6836G662	6836G663	6836G664
3	F	10 g/m3	Animal >	FS	U2	FS	FS	FS	FS	FS	U2	FS	FS	FS	FS	U2
Tissue/diagnosis																
Kidneys (9)																
Status >																
Operator >																
211-Atrophy			S	142							142	142			142	142
149-Cyst			S	-							-	-			-	-
209-Degen, hyaline droplet			S	-							-	-			-	-
210-Dilatation			S	-							-	-			-	-
228-Infarct			S	-							-	-			-	-
16-Nephropathy, chronic			S	1							1	3=			1	1
6-Pigment accum, tub epi			S	-							-	-			-	-
98-M-Leukemia, monoc				-							-	-			-	-
299-N-Sarcoma, histiocytic				-							-	1=			-	-
Heart (5)																
Status >																
Operator >																
100-Degen, myocyte			S	142							142				142	142
101-Fibrosis			S	-							-	-			-	-
175-Thrombus			S	-							-	-			-	-
36-Inflammation, focal, chronic			S	-							-	-			-	-
48-M-Leukemia, monoc				-							-	-			-	-
Stomach (4)																
Status >																
Operator >																
268-Ulcer			S	142							142				142	142
103-Inflammation, mixed			S	-							-	-			-	-
217-M-Carcinoma, metastatic				-							-	-			-	-
220-M-Leukemia, monoc				-							-	-			-	-
Cecum (1)																
Status >																
Operator >																
104-N-Leukemia, monoc				142							142				142	142
Urinary bladder (4)																
Status >																
Operator >																
186-Hemorrhage			S	142							142				142	142
56-Inflammation, chronic			S	-							-	-			-	-
166-Hyperplasia, papillary			S	-							-	-			-	-
106-M-Leukemia, monoc				-							-	-			-	-
Duodenum (1)																
Status >																
Operator >																
275-Inflammation, acute			S	142							142				142	142
Jejunum																
Status >																
Operator >																
				U							U				U	U
				142							142				142	142

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Lovelace Respiratory  
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Rat/F344/N

Group Sex Dosage	Animal >	6836G652	6836G654	6836G656	6836G658	6836G660	6836G662	6836G664
3 F 10 g/m3	Animal >	6836G651	6836G653	6836G655	6836G657	6836G659	6836G661	6836G663
Tissue/diagnosis	Death code >	FS	U2	FS	FS	FS	FS	FS
Ileum (1)	Status >							*
181-N-Leukemia, monuc	Operator >	142	142	142	142	142	142	142
Colon	Status >		U					U
	Operator >	142	142					142
Pancreas (2)	Status >			142				142
212-Fibrosis	Operator >							
110-M-Leukemia, monuc	S							
Rectum (1)	Status >			142				142
276-Metaplasia, squamous	Operator >							
Adrenal glands (9)	Status >			142				142
161-Cyst	Operator >							
113-Degen, cytopl vacuol	S			142				142
170-Necrosis	S			2				mH
118-Thrombus	S							
117-Hyperplasia, cortical, focal	S							
64-Hyperplasia, focal	S							
116-B-Pheochrom, bgn	P							
216-M-Carcinoma, metastatic	P							
112-M-Leukemia, monuc	P							
Uterus (11)	Status >							
277-Angiectasis	Operator >	142	142	142	142	142	142	142
7-Dilatation	S							
167-Intussusception	S							
162-Inflammation, mixed	P							
49-Inflammation, chronic	S							
20-Hyperplasia, cystic endom	S							
286-B-Adenoma, endometrial	S							
9-B-Polyp, endometrial stromal	S							
213-M-Adenocarcinoma, endometr	1=					1=	1=	1=
279-M-Leiomyosar	1=							
165-M-Leukemia, monuc	1=							
Mesenteric LN (4)	Status >							
120-Hemorrhage	Operator >	142	142	142	142	142	142	142
173-Inflammation, chronic	S							
206-N-Sarcoma, histiocytic	S							
32-N-Leukemia, monuc	S							

Group	Sex	Dosage	Animal	Animal	6836G652	6836G653	6836G654	6836G655	6836G656	6836G657	6836G658	6836G659	6836G660	6836G661	6836G662	6836G663	6836G664
3	F	10 g/m3	>	>	FS	U2	FS	FS	FS	FS	FS	U2	FS	FS	FS	FS	U2
Tissue/diagnosis																	
Ovaries (9)																	
Status >																	
Operator >																	
284-Congestion			s		142					142			142				142
154-Cyst, bursa			p														142
234-Cyst, epithelial			p														142
293-Cyst, follicular			p														142
291-Cyst, rete ovarii			s														142
25-Hemorrhage			s					2=									142
290-Necrosis, mesenteric fat			s														142
207-N-Sarcoma, histiocytic																	142
163-M-Leukemia, monoc																	142
Sciatic nerve					U							U					142
Operator >					142							142					142
Muscle, skeletal (1)																	142
Operator >					142												142
208-N-Sarcoma, histiocytic																	142
Mammary gland (6)																	142
Operator >					142												142
159-Ectasia			s														142
190-Hyperplasia, lobular			s														142
156-B-Fibroadenoma																	142
70-B-Fibroma																	142
235-M-Adenocarcinoma																	142
224-M-AdenoCA arising in fibroAD																	142
Skin (3)																	142
Operator >					142												142
252-Cyst, epith inc			p														142
122-Fibrosis			s														142
253-Inflammation, mixed			s														142
Brain (6)																	142
Operator >					142												142
26-Compression			s														142
192-Hemorrhage			s														142
155-Metaplasia, osseous, meninge			s														142
33-Necrosis			s														142
194-Inflammation, chronic			s														142
256-M-Astrocytoma, malignant																	142
Eyes/optic nerve (7)																	142
Operator >					142												142
127-Atrophy			s														142
129-Atrophy, retinal, unilat			s														142
130-Cataract			p														142
133-Metaplasia, osseous, sclera			s														142

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Group Sex Dosage	Animal >	6836G652	6836G653	6836G654	6836G655	6836G656	6836G657	6836G658	6836G659	6836G660	6836G661	6836G662	6836G663	6836G664	
3 F 10 g/m3	Animal >	6836G651	6836G652	6836G653	6836G654	6836G655	6836G656	6836G657	6836G658	6836G659	6836G660	6836G661	6836G662	6836G663	6836G664
Tissue/diagnosis	Death code >	FS	FS	U2	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Eyes/optic nerve (7)	Status >														
58-Mineralization, corneal str s	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
126-Mineralization, scleral s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
131-Neovascularization, corneal s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bone, femur (1)	Status >														
179-New bone, endosteal	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Spinal cord (3)	Status >														
27-Degen, white matter s	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
197-Hemorrhage s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
231-Necrosis, neuronal s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 1 (5)	Status >														
260-Degeneration, hyal-resp epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
134-Inflammation, mixed s	Operator >	-	-	-	-	-	-	2	-	-	-	-	-	-	-
34-Inflammation-nasolac duct s	Operator >	-	-	3	3	3	-	2	-	-	-	-	-	3	2
136-Inflammation-resp epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
199-Hyperplasia-resp epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Nose/Turbinates 2 (6)	Status >														
18-Degeneration, hyaline-olf epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
261-Degeneration, hyal-resp epith s	Operator >	1	-	-	-	-	-	2	-	-	-	-	-	3	-
176-Metaplasia, sec-olfact epith s	Operator >	-	-	2	-	-	-	2	-	1	-	2	-	-	-
270-Metaplasia, squ-olfact epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138-Inflammation, mixed s	Operator >	-	-	-	-	1	-	-	-	-	-	-	-	-	-
227-Hyperplasia-resp epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >														
295-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
19-Degeneration, hyaline-olf epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
232-Degeneration-resp epith s	Operator >	-	2	-	1	-	2	-	-	-	-	1	-	3	-
142-Inflammation, mixed s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 4 (3)	Status >														
285-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
164-Degeneration, hyaline-olf epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144-Inflammation, mixed s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6836G652	6836G654	6836G656	6836G658	6836G660	6836G662	6836G664
3 F 10 g/m3	Animal >	6836G651	6836G653	6836G655	6836G657	6836G659	6836G661	6836G663
Tissue/diagnosis	Death code >	FS	U2	FS	FS	U2	FS	FS
Cervix (3)	Status >	M	M	M	M	M	M	M
Operator >	Operator >			142				
168-B-Polyp, endometrial stromal								
289-M-Leiomyosarcoma								
269-N-Adenocarcinoma, endometr								
Clitoral gland (3)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
294-B-Adenoma								
61-M-Carcinoma, squamous cell								
271-N-Adenocarcinoma								
Lymph node other (3)	Status >	M	MH	M	M	M	M	M
Operator >	Operator >		142					
60-Hemorrhage								
59-Infiltration, histiocytic	s							
65-N-Leukemia, monuc								
Popliteal LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
66-N-Leukemia, monuc								
Iliac LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
67-N-Leukemia, monuc								
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
68-N-Leukemia, monuc								
Mediastinal LN (7)	Status >		142			142	142	142
Operator >	Operator >		2					
29-Hemorrhage	s							
3-Infiltration, histiocytic	s							
2-Pigmentation	s							
273-B-Thymoma								
219-M-Carcinoma, metastatic								
265-N-Sarcoma, histiocytic						1		
41-N-Leukemia, monuc								
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
160-Angiectasis	s							
37-Cyst	s	3=	2=				1	2=
38-Degen	s							
148-Hemorrhage	s							
203-Necrosis	s							
57-Hyperplasia, focal	s		3					2
31-B-Adenoma, pars distalis				1=			1=	1=

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Lovelace Respiratory  
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Group Sex Dosage	Animal >	6836G652	6836G653	6836G654	6836G655	6836G656	6836G657	6836G658	6836G659	6836G660	6836G661	6836G662	6836G663	6836G664	6836G665	
3 F 10 g/m3	Animal >	6836G651	6836G652	6836G653	6836G654	6836G655	6836G656	6836G657	6836G658	6836G659	6836G660	6836G661	6836G662	6836G663	6836G664	6836G665
Tissue/diagnosis	Death code >	FS	FS	U2	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	U1
Pituitary gland (10)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288-M-Carcinoma		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
146-M-Leukemia, monoc		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >															
152-Inflammation, mixed	s															
153-Hyperplasia/hyperkeratosis	s															
Bone, rib (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >															
Mesentery (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >															
218-M-Carcinoma, metastatic	p															
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >															
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >															
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >															
Bone, other (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
272-Fracture	Operator >															
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
278-Pigment	Operator >															
Vagina (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >															

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Group	Sex	Dosage	Animal >	6836G652	6836G654	6836G656	6836G658	6836G660	6836G662	6836G664
3	F	10 g/m3	Animal >	6836G651	6836G653	6836G655	6836G657	6836G659	6836G661	6836G663
		Tissue/diagnosis	Death code >	FS	U2	FS	FS	U2	FS	FS
		Tiss.not specifi	Status >	M	M	M	M	M	M	M
		Operator >								

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Group	Sex	Dosage	Animal	6836G667	6836G669	6836G670	6836G671	6836G672	6836G673	6836G674	6836G675	6836G676	6836G677	6836G678	6836G679	
3	F	10 g/m3	Animal >	FS	FS	FS	U1	FS	FS	FS	FS	U2	FS	U2	U2	
Tissue/diagnosis			Death code >													
Lungs (12)																
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
40-Alveolar histiocytosis			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
30-Congestion			s	-	-	-	-	-	-	-	-	-	-	-	-	-
71-Fibrosis, focal			s	-	-	-	-	-	-	-	-	-	-	-	-	-
182-Hemorrhage			s	-	-	-	-	-	-	-	-	-	-	-	-	-
177-Inflammation, acute			s	-	-	-	-	-	-	-	-	-	-	-	-	-
72-Inflammation, mixed			s	-	-	-	-	-	-	-	-	-	-	-	-	-
236-Inflammation, granulomatous			s	-	-	-	-	-	-	-	-	-	-	-	-	-
10-Hyperplasia, alv. epi. focal			s	-	-	-	-	-	-	-	-	-	-	-	-	-
214-N-Carcinoma, metastatic			s	-	-	-	-	-	-	-	-	-	-	-	-	-
11-N-Leukemia, monuc - cap invol			s	-	-	-	-	-	-	-	1	-	-	-	2	
74-N-Leukemia, monuc - inv invol			s	-	-	-	-	-	-	-	-	-	-	-	-	
204-N-Sarcoma, histiocytic			s	-	-	-	-	-	-	-	-	-	-	-	-	
Trachea (4)																
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
22-Inflammation, acute			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
75-Inflammation, mixed			s	-	-	-	-	-	-	-	-	-	-	-	-	-
76-Hyperplasia			s	-	-	-	-	-	-	-	-	-	-	-	-	-
238-N-Leukemia, monuc			s	-	-	-	-	-	-	-	-	-	-	-	-	-
Bronchial (TBLN) (3)																
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
21-Hemorrhage			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
297-Inflammation, mixed			s	-	-	-	-	-	-	-	-	-	-	-	-	-
62-N-Leukemia, monuc			s	-	-	-	-	-	-	-	-	1	-	-	-	
Thyroid glands (8)																
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
79-Cyst, follicular			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
77-Hyperplasia, C-cell, focal			p	-	-	-	-	-	-	-	-	-	-	-	-	-
81-Hyperplasia, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-
35-B-Adenoma, C-cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-
78-B-Adenoma, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-
174-M-Carcinoma, C-cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-
80-M-Carcinoma, follicular cell			s	-	-	-	-	-	-	-	-	-	-	-	-	-
178-M-Leukemia, monuc			s	-	-	-	-	-	-	-	-	-	-	-	-	-
Parathyroid (2)																
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
241-Hyperplasia, focal			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
296-B-Adenoma			s	-	-	-	-	-	-	-	-	-	-	-	-	-
Aorta (1)																
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
83-N-Leukemia, monuc - inv invol			Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
			s	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6836G667	6836G669	6836G671	6836G673	6836G675	6836G677	6836G679
3 F 10 g/m3	Animal >	6836G666	6836G668	6836G670	6836G672	6836G674	6836G676	6836G678
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
	Status >			U			U	U
	Operator >			142			142	142
	Status >							
Larynx (5)	Operator >	142	142	142	142	142	142	142
12-Metaplasia, squamous	s	1	1	-	-	-	2	-
1-Hyperplasia	s	-	-	1	1	-	-	-
23-Inflammation, acute	s	-	-	-	-	-	-	-
42-Inflammation, mixed	s	-	1	2	2	1	1	1
53-Inflammation, chronic	s	-	-	-	-	-	1	-
Salivary gland (1)	Status >			142			142	142
43-M-Leukemia, monuc	Operator >			-			-	-
Mandibular LN (2)	Status >			142			142	142
89-Hemorrhage	Operator >	142		-			142	142
44-N-Leukemia, monuc	s	-	-	-	-	-	-	-
Liver (15)	Status >			142			142	142
45-Angiectasis	Operator >			-			-	-
158-Congestion	s			-			-	-
90-Fatty Change	s			-			-	-
150-Foci cell alter, basophilic	s			-			-	-
92-Hdn	p			-			-	-
4-Necrosis	s			-			-	-
230-Thrombus	s			-			-	-
13-Vacuoliz cyto	s			-			-	-
24-Inflammation, acute	s			1			-	1
54-Inflammation, chronic	s			-			-	-
46-Hyperplasia, biliary	s			-			1	2
47-Hyperplasia, hepato, regen	s			-			-	-
91-B-Adenoma, hepatocellular				-			-	-
205-M-Sarcoma, histiocytic				-			-	-
14-M-Leukemia, monuc				-			2	2
Spleen (5)	Status >			142			142	142
96-Fibrosis	Operator >			-			-	-
226-Hemorrhage	s			-			-	-
97-Necrosis	s			-			-	-
15-M-Leukemia, monuc				-			1	2
298-N-Sarcoma, histiocytic				-			-	-

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Group Sex Dosage	Animal >	6836G669	6836G671	6836G673	6836G675	6836G677	6836G679
3 F 10 g/m3	Animal >	6836G666	6836G670	6836G672	6836G674	6836G676	6836G678
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS

Kidneys (9)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
211-Atrophy	S	-	-	-	-	-	-
149-Cyst	S	-	-	-	-	-	-
209-Degen, hyaline droplet	S	-	-	-	-	-	-
210-Dilatation	S	-	-	-	-	-	-
228-Infarct	S	-	-	-	-	-	-
16-Nephropathy, chronic	S	-	-	-	-	-	-
6-Pigment accum, tub epi	S	-	-	-	-	-	-
98-M-Leukemia, monuc	S	-	-	-	-	-	-
299-N-Sarcoma, histiocytic	S	-	-	-	-	-	-

Heart (5)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
100-Degen, myocyte	S	-	-	-	-	-	-
101-Fibrosis	S	-	-	-	-	-	-
175-Thrombus	S	-	-	-	-	-	-
36-Inflammation, focal, chronic	S	-	-	-	-	-	-
48-M-Leukemia, monuc	S	-	-	-	-	-	-

Stomach (4)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
268-Ulcer	S	-	-	-	-	-	-
103-Inflammation, mixed	S	-	-	-	-	-	-
217-M-Carcinoma, metastatic	S	-	-	-	-	-	-
220-M-Leukemia, monuc	S	-	-	-	-	-	-

Cecum (1)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
104-N-Leukemia, monuc	S	-	-	-	-	-	-

Urinary bladder (4)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
186-Hemorrhage	S	-	-	-	-	-	-
56-Inflammation, chronic	S	-	-	-	-	-	-
166-Hyperplasia, papillary	S	-	-	-	-	-	-
106-M-Leukemia, monuc	S	-	-	-	-	-	-

Duodenum (1)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
275-Inflammation, acute	S	-	-	-	-	-	-

Jejunum	Status >	U	U	U	U	U	U
Operator >	Operator >	-	-	-	-	-	-
142	142	U	U	U	U	U	U

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Group Sex Dosage	Animal >	6836G667	6836G669	6836G671	6836G673	6836G675	6836G677	6836G679
3 F 10 g/m3	Animal >	6836G666	6836G668	6836G670	6836G672	6836G674	6836G676	6836G678
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS
Ileum (1)	Status >			142			142	142
181-N-Leukemia, monuc	Operator >			-			-	-
Colon	Status >			U			U	U
	Operator >			142			142	142
Pancreas (2)	Status >			142			142	142
212-Fibrosis	Operator >			-			-	-
110-M-Leukemia, monuc	S			-			-	-
Rectum (1)	Status >			142			142	142
276-Metaplasia, squamous	Operator >			-			-	-
Adrenal glands (9)	Status >			142			142	142
161-Cyst	Operator >		142					
113-Degen, cytopl vacuol	S		-				-	-
170-Necrosis	S		-				-	-
118-Thrombus	S		-				-	-
117-Hyperplasia, cortical, focal	S		-				-	-
64-Hyperplasia, focal	S		-				-	-
116-B-Pheochrom, bgn	p		-				-	-
216-M-Carcinoma, metastatic	1=		-				-	-
112-M-Leukemia, monuc	-		-				-	-
Uterus (11)	Status >			142			142	142
277-Angiectasis	Operator >		142					
7-Dilatation	S		-				-	-
167-Intussusception	S		2				3	
162-Inflammation, mixed	p		-				-	-
49-Inflammation, chronic	S		-				-	-
20-Hyperplasia, cystic endom	S		-				-	-
286-B-Adenoma, endometrial	S		-				-	-
9-B-Polyp, endometrial stromal	S		1=				-	-
213-M-Adenocarcinoma, endometr	1=		-				-	-
279-M-Leiomyosar	-		-				-	-
165-M-Leukemia, monuc	-		-				-	-
Mesenteric LN (4)	Status >			142			142	142
120-Hemorrhage	Operator >			-			-	-
173-Inflammation, chronic	S		-				-	-
206-N-Sarcoma, histiocytic	S		-				-	-
32-N-Leukemia, monuc	1		-				-	-

Group	Sex	Dosage	Animal	6836G667	6836G669	6836G670	6836G671	6836G672	6836G673	6836G674	6836G675	6836G676	6836G677	6836G679
3	F	10 g/m3	Animal >	FS	FS	FS	U1	FS	FS	FS	FS	U2	FS	U2
Tissue/diagnosis														
Ovaries (9)														
Status >														
Operator >														
284-Congestion			s				142				142	142	142	142
154-Cyst, bursa			p											
234-Cyst, epithelial			p								P=			
293-Cyst, follicular			p											
291-Cyst, rete ovarii			s											
25-Hemorrhage			s											
290-Necrosis, mesenteric fat			s											
207-N-Sarcoma, histiocytic														
163-M-Leukemia, monoc														
Sciatic nerve							U					U	U	U
			Operator >				142				142	142	142	142
Muscle, skeletal (1)			Status >											
			Operator >				142				142	142	142	142
208-N-Sarcoma, histiocytic														
Mammary gland (6)			Status >				142	142						
			Operator >											
159-Ectasia			s											
190-Hyperplasia, lobular			s											
156-B-Fibroadenoma								1=						
70-B-Fibroma														
235-M-Adenocarcinoma														
224-M-AdenoCA arising in fibroAD														
Skin (3)			Status >				142							
			Operator >											
252-Cyst, epith inc			p											
122-Fibrosis			s											
253-Inflammation, mixed			s											
Brain (6)			Status >				142							
			Operator >											
26-Compression			s											
192-Hemorrhage			s											
155-Metaplasia, osseous, meninge			s											
33-Necrosis			s											
194-Inflammation, chronic			s											
256-M-Astrocytoma, malignant														
Eyes/optic nerve (7)			Status >				142							
			Operator >											
127-Atrophy			s											
129-Atrophy, retinal, unilat			s											
130-Cataract			p											
133-Metaplasia, osseous, sclera			s											

Group Sex Dosage	Animal >	6836G667	6836G669	6836G670	6836G671	6836G672	6836G673	6836G674	6836G675	6836G676	6836G677	6836G679
3 F 10 g/m3	Animal >	6836G666	6836G668	6836G670	6836G671	6836G672	6836G673	6836G674	6836G675	6836G676	6836G677	6836G679
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Eyes/optic nerve (7)	Status >	142			142				142	142	142	142
58-Mineralization, corneal str	Operator >											
126-Mineralization, scleral s	Operator >											
131-Neovascularization, corneal s	Operator >											
Bone, femur (1)	Status >				142				142	142	142	142
179-New bone, endosteal	Operator >											
Spinal cord (3)	Status >				142				142	142	142	142
27-Degen, white matter	Operator >											
197-Hemorrhage	Operator >											
231-Necrosis, neuronal	Operator >											
Nose/Turbinate 1 (5)	Status >											
260-Degeneration,hyal-resp epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142
134-Inflammation, mixed	Operator >											
34-Inflammation-nasolac duct	Operator >	1			3							1
136-Inflammation-resp epith s	Operator >			3	2			3				3
199-Hyperplasia-resp epith s	Operator >											
Nose/Turbinate 2 (6)	Status >											
18-Degeneration,hyaline-olf epi s	Operator >	142	142	142	142	142	142	142	142	142	142	142
261-Degeneration,hyal-resp epith s	Operator >											
176-Metaplasia, sec-olfact epith s	Operator >											1
270-Metaplasia, squ-olfact epith s	Operator >											
138-Inflammation, mixed	Operator >											
227-Hyperplasia-resp epith s	Operator >											
Nose/Turbinate 3 (4)	Status >											
295-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142
19-Degeneration,hyaline-olf epi s	Operator >											1
232-Degeneration-resp epith s	Operator >											2
142-Inflammation, mixed	Operator >	2										
Nose/Turbinate 4 (3)	Status >											
285-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142	142	142	142	142
164-Degeneration,hyaline-olf epi s	Operator >											
144-Inflammation, mixed	Operator >											

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Group Sex Dosage	Animal >	6836G667	6836G669	6836G671	6836G673	6836G675	6836G677	6836G679
3 F 10 g/m3	Animal >	6836G666	6836G668	6836G670	6836G672	6836G674	6836G676	6836G678
Tissue/diagnosis	Death code >	FS FS	FS FS	FS FS	FS FS	FS FS	FS FS	FS FS
Cervix (3)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >	142	142	142	142	142	142	142
168-B-Polyp, endometrial stromal								
289-M-Leiomyosarcoma								
269-N-Adenocarcinoma, endometr								
Clitoral gland (3)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >	142	142	142	142	142	142	142
294-B-Adenoma								
61-M-Carcinoma, squamous cell								
271-N-Adenocarcinoma								
Lymph node other (3)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >	142	142	142	142	142	142	142
60-Hemorrhage								
59-Infiltration, histiocytic s								
65-N-Leukemia, monuc								
Popliteal LN (1)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >	142	142	142	142	142	142	142
66-N-Leukemia, monuc								
Iliac LN (1)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >	142	142	142	142	142	142	142
67-N-Leukemia, monuc								
Pancreatic LN (1)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >	142	142	142	142	142	142	142
68-N-Leukemia, monuc								
Mediastinal LN (7)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >	142	142	142	142	142	142	142
29-Hemorrhage								
3-Infiltration, histiocytic s								
2-Pigmentation								
273-B-Thymoma								
219-M-Carcinoma, metastatic								
265-N-Sarcoma, histiocytic								
41-N-Leukemia, monuc								
Pituitary gland (10)	Status >	M M	M M	M M	M M	M M	M M	M M
Operator >	Operator >	142	142	142	142	142	142	142
160-Angiectasis								
37-Cyst								
38-Degen								
148-Hemorrhage								
203-Necrosis								
57-Hyperplasia, focal								
31-B-Adenoma, pars distalis								

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Group Sex Dosage	Animal >	6836G667	6836G669	6836G671	6836G673	6836G675	6836G677	6836G679
3 F 10 g/m3	Animal >	6836G666	6836G668	6836G670	6836G672	6836G674	6836G676	6836G678
Tissue/diagnosis	Death code >	FS	FS	FS	FS	FS	FS	U2
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-
288-M-Carcinoma	s	-	-	-	-	-	-	-
146-M-Leukemia, monuc	s	-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >							
152-Inflammation, mixed	s							
153-Hyperplasia/hyperkeratosis	s							
Bone, rib (1)	Status >	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >							
Mesentery (2)	Status >	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >							
218-M-Carcinoma, metastatic	p							
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M
221-N-Leukemia, monuc	Operator >							
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >							
Mediastinum (1)	Status >	M	M	M	M	M	M	M
233-N-Leukemia, monuc	Operator >							
Bone, other (1)	Status >	M	M	M	M	M	M	M
272-Fracture	Operator >							
Harderian gland (1)	Status >	M	M	M	M	M	M	M
278-Pigment	Operator >							
Vagina (1)	Status >	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >							

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Group	Sex	Dosage	Animal >	6836G667	6836G669	6836G671	6836G673	6836G675	6836G677	6836G679
3	F	10 g/m3	Animal >	6836G666	6836G668	6836G670	6836G672	6836G674	6836G676	6836G678
		Tissue/diagnosis	Death code >	FS						
		Tiss.not specifi	Status >	M	M	M	M	M	M	M
			Operator >							

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Group Sex Dosage	Animal >	6836G682	6836G684	6836G686	6836G688	6836G690	6836G692	6836G694
3 F 10 g/m3	Animal >	6836G681	6836G683	6836G685	6836G687	6836G689	6836G691	6836G693
Tissue/diagnosis	Death code >	FS U2	FS U2	FS U2	FS U2	FS U2	FS U2	FS U1
		142	142	142	142	142	142	142
Lungs (12)	Status >						H	a
40-Alveolar histiocytosis	Operator >						142	142
30-Congestion	s						1	
71-Fibrosis, focal	s							
182-Hemorrhage	s							
177-Inflammation, acute	s							
72-Inflammation, mixed	s							
236-Inflammation, granulomatous	s							
10-Hyperplasia, alv. epi. focal	s							
214-N-Carcinoma, metastatic								
11-N-Leukemia, monuc - cap invol			2		2			1
74-N-Leukemia, monuc - inv invol		2=		1=				
204-N-Sarcoma, histiocytic								
Trachea (4)	Status >							
22-Inflammation, acute	Operator >	142	142	142	142	142	142	142
75-Inflammation, mixed	s							
76-Hyperplasia	s							
238-N-Leukemia, monuc								
Bronchial (TBLN) (3)	Status >							
21-Hemorrhage	Operator >	142	142	142	142	142	142	142
297-Inflammation, mixed	s			1=				
62-N-Leukemia, monuc	s	1=		1	1			
Thyroid glands (8)	Status >							
79-Cyst, follicular	Operator >	142	142	142	142	142	142	142
77-Hyperplasia, C-cell, focal	p							
81-Hyperplasia, follicular cell	s		1					
35-B-Adenoma, C-cell				1=				1=
78-B-Adenoma, follicular cell								
174-M-Carcinoma, C-cell								
80-M-Carcinoma, follicular cell								
178-M-Leukemia, monuc								
Parathyroid (2)	Status >							
241-Hyperplasia, focal	Operator >	mH	142	142	142	142	m	mH
296-B-Adenoma	s	142					142	142
Aorta (1)	Status >							
83-N-Leukemia, monuc - inv invol	Operator >	142	142	142	142	142	142	142

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3 F 10 g/m3	Animal >	6836G681	6836G683	6836G685	6836G687	6836G689	6836G691	6836G693
Tissue/diagnosis	Death code >	FS	U2	FS	U2	FS	U2	FS
Esophagus	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Larynx (5)	Status >							
Operator >								
12-Metaplasia, squamous	Operator >	142	142	142	142	142	142	142
s			2					
1-Hyperplasia	s							
23-Inflammation, acute	s							
42-Inflammation, mixed	s		1	1	1	1	2	1
53-Inflammation, chronic	s	1			2			
Salivary gland (1)	Status >	142	142	142	142	142	142	142
Operator >								
43-M-Leukemia, monuc	Operator >							
Mandibular LN (2)	Status >	142	142	142	142	142	142	142
Operator >								
89-Hemorrhage	s							
44-N-Leukemia, monuc	s	1=		1		1		
Liver (15)	Status >	142	142	142	142	142	142	142
Operator >								
45-Angiectasis	s							
158-Congestion	s							
90-Fatty Change	s							
150-Foci cell alter, basophilic	s							
92-Hdn	p							
4-Necrosis	s							
230-Thrombus	s							
13-Vacuoliz cyto	s				2			
24-Inflammation, acute	s							
54-Inflammation, chronic	s							
46-Hyperplasia, biliary	s	1	1	2	2	1	1	2
47-Hyperplasia, hepato, regen	s							
91-B-Adenoma, hepatocellular								
205-M-Sarcoma, histiocytic								
14-M-Leukemia, monuc		2=		2=	2=	2=		
Spleen (5)	Status >	142	142	142	142	142	142	142
Operator >								
96-Fibrosis	s			1				
226-Hemorrhage	s							
97-Necrosis	s							
15-M-Leukemia, monuc		2=		2=	2=	2=		
298-N-Sarcoma, histiocytic				1=				

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Group Sex Dosage	Animal >	6836G682	6836G684	6836G686	6836G688	6836G690	6836G692	6836G694
3 F 10 g/m3	Animal >	6836G681	6836G683	6836G685	6836G687	6836G689	6836G691	6836G693
Tissue/diagnosis	Death code >	FS U2	U2 FS	U2 FS	U2 FS	FS FS	FS U1	FS FS
	Status >	142	142	142	142	142	142	142
	Operator >							
Kidneys (9)								
211-Atrophy	S							
149-Cyst	S							
209-Degen, hyaline droplet	S							
210-Dilatation	S							
228-Infarct	S							
16-Nephropathy, chronic	S	1	1	1	2			1
6-Pigment accum, tub epi	S							
98-M-Leukemia, monuc		1						
299-N-Sarcoma, histiocytic								
Heart (5)								
	Status >	142	142	142	142	142	142	142
	Operator >							
100-Degen, myocyte	S							
101-Fibrosis	S							
175-Thrombus	S							
36-Inflammation, focal, chronic	S				1			1
48-M-Leukemia, monuc								
Stomach (4)								
	Status >	142	142	142	142	142	142	142
	Operator >							
268-Ulcer	S							
103-Inflammation, mixed	S							
217-M-Carcinoma, metastatic								
220-M-Leukemia, monuc		1						
Cecum (1)								
	Status >	142	142	142	142	142	142	142
	Operator >							
104-N-Leukemia, monuc								
Urinary bladder (4)								
	Status >	142	142	142	142	142	142	142
	Operator >							
186-Hemorrhage	S							
56-Inflammation, chronic	S							
166-Hyperplasia, papillary	S							
106-M-Leukemia, monuc								
Duodenum (1)								
	Status >	142	142	142	142	142	142	142
	Operator >							
275-Inflammation, acute	S							
Jejunum								
	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142

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Group Sex Dosage	Animal >	6836G682	6836G684	6836G686	6836G688	6836G690	6836G692	6836G694
3 F 10 g/m3	Animal >	6836G681	6836G683	6836G685	6836G687	6836G689	6836G691	6836G693
Tissue/diagnosis	Death code >	FS	U2	FS	U2	FS	U2	FS
Ileum (1)	Status >	142	142	142	142	142	142	142
181-N-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Colon	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Pancreas (2)	Status >	142	142	142	142	142	142	142
212-Fibrosis	Operator >	-	-	-	-	-	-	-
110-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Rectum (1)	Status >	142	142	142	142	142	142	142
276-Metaplasia, squamous	Operator >	-	-	-	-	-	-	-
Adrenal glands (9)	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
161-Cyst	S	-	-	-	-	-	-	-
113-Degen, cytopl vacuol	S	-	-	-	-	-	-	-
170-Necrosis	S	-	-	-	-	-	-	-
118-Thrombus	S	-	-	-	-	-	-	-
117-Hyperplasia, cortical, focal	S	-	-	-	-	-	-	-
64-Hyperplasia, focal	p	-	-	-	-	-	-	-
116-B-Pheochrom, bgn	p	-	-	-	-	-	-	-
216-M-Carcinoma, metastatic	p	-	-	-	-	-	-	-
112-M-Leukemia, monuc	p	-	-	-	-	-	-	-
Uterus (11)	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
277-Angiectasis	S	-	-	-	-	-	-	-
7-Dilatation	S	-	-	-	-	-	-	-
167-Intussusception	p	-	-	-	-	-	-	-
162-Inflammation, mixed	S	-	-	-	-	-	-	-
49-Inflammation, chronic	S	-	-	-	-	-	-	-
20-Hyperplasia, cystic endom	S	-	-	-	-	-	-	-
286-B-Adenoma, endometrial	S	-	-	-	-	-	-	-
9-B-Polyp, endometrial stromal	S	-	-	-	-	-	-	-
213-M-Adenocarcinoma, endometr	1=	-	-	-	-	-	-	-
279-M-Leiomyosar	-	-	-	-	-	-	-	-
165-M-Leukemia, monuc	-	-	-	-	-	-	-	-
Mesenteric LN (4)	Status >	142	142	142	142	142	142	142
	Operator >	-	-	-	-	-	-	-
120-Hemorrhage	S	-	-	-	-	-	-	-
173-Inflammation, chronic	S	-	-	-	-	-	-	-
206-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
32-N-Leukemia, monuc	1=	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6836G682	6836G683	6836G684	6836G685	6836G686	6836G687	6836G688	6836G690	6836G691	6836G692	6836G693	6836G694
3	F	10 g/m3	Animal >	6836G681	6836G683	6836G684	6836G685	6836G686	6836G687	6836G688	6836G690	6836G691	6836G692	6836G693	6836G694
Tissue/diagnosis			Death code >	FS	U2	FS	U2	FS	U2	U2	FS	U2	FS	U1	FS

Ovaries (9)	Status >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
284-Congestion	s		-	-	-	-	-	-	-	-	-	-	-	-	-
154-Cyst, bursa	p		-	-	-	-	-	-	-	-	-	-	-	-	-
234-Cyst, epithelial	p		-	-	-	-	-	-	-	-	-	-	-	-	-
293-Cyst, follicular	p		-	-	-	-	-	-	-	-	-	-	-	-	-
291-Cyst, rete ovarii	s		-	-	-	-	-	-	-	-	-	-	-	-	-
25-Hemorrhage	s		-	-	-	-	-	-	-	-	-	-	-	-	-
290-Necrosis, mesenteric fat	s		-	-	-	-	-	-	-	-	-	-	-	-	-
207-N-Sarcoma, histiocytic			-	-	-	-	-	-	-	-	-	-	-	-	-
163-M-Leukemia, monoc	1		-	-	-	-	-	-	-	-	-	-	-	-	-
Sciatic nerve	Status >	Operator >	U	U	U	U	U	U	U	U	U	U	U	U	U
			142	142	142	142	142	142	142	142	142	142	142	142	142
Muscle, skeletal (1)	Status >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
208-N-Sarcoma, histiocytic			-	-	-	-	-	-	-	-	-	-	-	-	-
Mammary gland (6)	Status >	Operator >	*H	142	142	142	142	142	142	142	142	142	142	142	142
159-Ectasia	s		-	-	-	-	-	-	-	-	-	-	-	-	-
190-Hyperplasia, lobular	s		-	-	-	-	-	-	-	-	-	-	-	-	-
156-B-Fibroadenoma			-	-	-	-	-	-	-	-	-	-	-	-	-
70-B-Fibroma			-	-	-	-	-	-	-	-	-	-	-	-	-
235-M-Adenocarcinoma			-	-	-	-	-	-	-	-	-	-	-	-	-
224-M-AdenoCA arising in fibroAD			-	-	-	-	-	-	-	-	-	-	-	-	-
Skin (3)	Status >	Operator >	*H	142	142	142	142	142	142	142	142	142	142	142	142
252-Cyst, epith inc	p		-	-	-	-	-	-	-	-	-	-	-	-	-
122-Fibrosis	s		-	-	-	-	-	-	-	-	-	-	-	-	-
253-Inflammation, mixed	s		-	-	-	-	-	-	-	-	-	-	-	-	-
Brain (6)	Status >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
26-Compression	s		-	-	-	-	-	-	-	-	-	-	-	-	-
192-Hemorrhage	s		-	-	-	-	-	-	-	-	-	-	-	-	-
155-Metaplasia, osseous, meninge	s		-	-	-	-	-	-	-	-	-	-	-	-	-
33-Necrosis	s		-	-	-	-	-	-	-	-	-	-	-	-	-
194-Inflammation, chronic	s		-	-	-	-	-	-	-	-	-	-	-	-	-
256-M-Astrocytoma, malignant			-	-	-	-	-	-	-	-	-	-	-	-	-
Eyes/optic nerve (7)	Status >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
127-Atrophy	s		-	-	-	-	-	-	-	-	-	-	-	-	-
129-Atrophy, retinal, unilat	s		-	-	-	-	-	-	-	-	-	-	-	-	-
130-Cataract	p		-	-	-	-	-	-	-	-	-	-	-	-	-
133-Metaplasia, osseous, sclera	s		-	-	-	-	-	-	-	-	-	-	-	-	-

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3 F 10 g/m3	Animal >	6836G681	6836G683	6836G685	6836G687	6836G689	6836G691	6836G693
Tissue/diagnosis	Death code >	FS U2	U2 FS	U2 FS	U2 FS	FS FS	FS FS	U1 FS
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
58-Mineralization, corneal str s		-	-	-	-	-	-	-
126-Mineralization, scleral s		1	-	-	-	-	-	1
131-Neovascularization, corneal s		-	-	-	-	-	-	-
Bone, femur (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
179-New bone, endosteal s		-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
27-Degen, white matter s		-	-	-	-	-	-	-
197-Hemorrhage s		1	-	-	-	-	-	-
231-Necrosis, neuronal s		-	-	-	-	-	-	-
Nose/Turbinates 1 (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
260-Degeneration,hyal-resp epith s		-	-	-	-	-	-	-
134-Inflammation, mixed s		-	-	-	-	-	-	-
34-Inflammation-nasolac duct s		-	-	3	-	-	-	3
136-Inflammation-resp epith s		-	-	-	-	-	-	-
199-Hyperplasia-resp epith s		-	-	-	-	-	-	-
Nose/Turbinates 2 (6)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
18-Degeneration,hyaline-olf epi s		-	-	-	-	-	-	-
261-Degeneration,hyal-resp epith s		-	-	-	-	-	-	-
176-Metaplasia, sec-olfact epith s		-	-	-	-	-	-	-
270-Metaplasia, squ-olfact epith s		-	-	-	1	-	-	-
138-Inflammation, mixed s		-	-	2	-	-	-	-
227-Hyperplasia-resp epith s		-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
295-Degeneration-olfact epith s		-	-	-	-	-	-	-
19-Degeneration,hyaline-olf epi s		-	-	-	-	-	-	-
232-Degeneration-resp epith s		-	-	-	-	-	-	-
142-Inflammation, mixed s		-	-	-	-	-	-	-
Nose/Turbinates 4 (3)	Status >	142	142	142	142	142	142	142
Operator >	Operator >							
285-Degeneration-olfact epith s		-	-	-	-	-	-	-
164-Degeneration,hyaline-olf epi s		-	-	-	-	-	-	-
144-Inflammation, mixed s		-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6836G682	6836G684	6836G686	6836G688	6836G690	6836G692	6836G694
3 F 10 g/m3	Animal >	6836G681	6836G683	6836G685	6836G687	6836G689	6836G691	6836G693
Tissue/diagnosis	Death code >	FS U2	FS U2	FS U2	FS U2	FS U2	FS U2	FS U1
Cervix (3)	Status >	M	M	M	M	M	M	M
Operator >								
168-B-Polyp, endometrial stromal								
289-M-Leiomyosarcoma								
269-N-Adenocarcinoma, endometr								
Clitoral gland (3)	Status >	M	M	M	M	M	M	M
Operator >								
294-B-Adenoma								
61-M-Carcinoma, squamous cell								
271-N-Adenocarcinoma								
Lymph node other (3)	Status >	M	M	M	M	M	M	M
Operator >								
60-Hemorrhage								
59-Infiltration, histiocytic								
65-N-Leukemia, monuc								
Popliteal LN (1)	Status >	M	M	M	M	M	M	M
Operator >								
66-N-Leukemia, monuc								
Iliac LN (1)	Status >	M	M	M	M	M	M	M
Operator >								
67-N-Leukemia, monuc								
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M
Operator >								
68-N-Leukemia, monuc								
Mediastinal LN (7)	Status >	M	M	M	M	M	M	M
Operator >								
29-Hemorrhage								
3-Infiltration, histiocytic								
2-Pigmentation								
273-B-Thymoma								
219-M-Carcinoma, metastatic								
265-N-Sarcoma, histiocytic								
41-N-Leukemia, monuc								
Pituitary gland (10)	Status >	M	M	M	M	M	M	M
Operator >								
160-Angiectasis								
37-Cyst								
38-Degen								
148-Hemorrhage								
203-Necrosis								
57-Hyperplasia, focal								
31-B-Adenoma, pars distalis								

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Group Sex Dosage	Animal >	6836G682	6836G684	6836G686	6836G688	6836G690	6836G692	6836G694
3 F 10 g/m3	Animal >	6836G681	6836G683	6836G685	6836G687	6836G689	6836G691	6836G693
Tissue/diagnosis	Death code >	FS U2	FS U2	FS U2	FS U2	FS U2	FS U2	FS U1
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-
288-M-Carcinoma		-	-	-	-	-	-	-
146-M-Leukemia, monoc		-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >			142				
152-Inflammation, mixed	s			2				
153-Hyperplasia/hyperkeratosis	s			-				
	s			3=				
Bone, rib (1)	Status >	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >							
Mesentery (2)	Status >	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >							
218-M-Carcinoma, metastatic	p							
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >							
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >							
Mediastinum (1)	Status >	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >							
Bone, other (1)	Status >	M	M	M	M	M	M	M
272-Fracture	Operator >				142			
Harderian gland (1)	p				P=			
278-Pigment	Status >	M	M	M	M	M	M	M
Vagina (1)	Operator >		142					
	s		2=					
287-M-Leiomyosarcoma	Status >	M	M	M	M	M	M	M
	Operator >							

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Group	Sex	Dosage	Animal >	6836G682	6836G684	6836G686	6836G688	6836G690	6836G692	6836G694
3	F	10 g/m3	Animal >	6836G683	6836G685	6836G687	6836G689	6836G691	6836G693	6836G695
		Tissue/diagnosis	Death code >	U2	FS	U2	U2	FS	FS	FS
		Tiss.not specifi	Status >	M	M	M	M	M	M	M
		Operator >			MH					
					142					

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Group Sex Dosage	Animal >	6836G697	6836G699	6836G696	6836G698	6836G700
3 F 10 g/m3	Animal >	U2	FS	U2	U2	FS
Tissue/diagnosis	Death code >					
Lungs (12)	Status >					
40-Alveolar histiocytosis	Operator >	142	142	142	142	142
30-Congestion	s	-	-	-	-	-
71-Fibrosis, focal	s	-	-	-	-	-
182-Hemorrhage	s	-	-	-	-	-
177-Inflammation, acute	s	-	-	-	-	-
72-Inflammation, mixed	s	-	-	-	-	-
236-Inflammation, granulomatous	s	-	-	-	-	-
10-Hyperplasia, alv. epi. focal	s	-	-	-	-	2
214-N-Carcinoma, metastatic		-	-	-	-	-
11-N-Leukemia, monuc - cap invol		-	-	2	-	-
74-N-Leukemia, monuc - inv invol		-	-	-	-	-
204-N-Sarcoma, histiocytic		-	-	-	-	-
Trachea (4)	Status >					
22-Inflammation, acute	Operator >	142	142	142	142	142
75-Inflammation, mixed	s	-	-	-	-	-
76-Hyperplasia	s	-	-	-	-	-
238-N-Leukemia, monuc		-	-	-	-	-
Bronchial (TBLN) (3)	Status >					
21-Hemorrhage	Operator >	142	142	142	142	142
297-Inflammation, mixed	s	-	-	-	-	-
62-N-Leukemia, monuc	s	-	-	1=	-	-
Thyroid glands (8)	Status >					
79-Cyst, follicular	Operator >	142	142	142	142	142
77-Hyperplasia, C-cell, focal	p	-	-	-	-	-
81-Hyperplasia, follicular cell	s	-	-	-	-	-
35-B-Adenoma, C-cell		-	-	-	-	-
78-B-Adenoma, follicular cell		-	-	-	-	-
174-M-Carcinoma, C-cell		-	-	-	-	-
80-M-Carcinoma, follicular cell		-	-	-	-	-
178-M-Leukemia, monuc		-	-	-	-	-
Parathyroid (2)	Status >					
241-Hyperplasia, focal	Operator >	mH	142	142	142	142
296-B-Adenoma	s	-	-	-	-	-
Aorta (1)	Status >					
83-N-Leukemia, monuc - inv invol	Operator >	142	142	142	142	142
		-	-	-	-	-

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Group Sex Dosage	Animal >	6836G697	6836G699	
3 F 10 g/m3	Animal >	6836G696	6836G698	6836G700
Tissue/diagnosis	Death code >	U2 FS	U2 U2	FS FS
<b>Esophagus</b>	Status >	U	U	U
	Operator >	142	142	142
<b>Larynx (5)</b>	Status >			
12-Metaplasia, squamous	Operator >	142	142	142
1-Hyperplasia	s	-	-	1
23-Inflammation, acute	s	1	-	-
42-Inflammation, mixed	s	-	-	-
53-Inflammation, chronic	s	-	-	-
<b>Salivary gland (1)</b>	Status >			
43-M-Leukemia, monuc	Operator >	142	142	142
<b>Mandibular LN (2)</b>	Status >			
89-Hemorrhage	Operator >	142	142	142
44-N-Leukemia, monuc	s	-	-	-
<b>Liver (15)</b>	Status >			
45-Angiectasis	Operator >	142	142	142
158-Congestion	s	-	-	-
90-Fatty Change	s	-	-	-
150-Foci cell alter, basophilic	s	-	-	-
92-Hdn	p	-	-	-
4-Necrosis	s	-	-	-
230-Thrombus	s	-	-	-
13-Vacuoliz cyto	s	-	-	-
24-Inflammation, acute	s	-	-	-
54-Inflammation, chronic	s	-	-	-
46-Hyperplasia, biliary	s	1	-	-
47-Hyperplasia, hepato, regen	s	-	-	-
91-B-Adenoma, hepatocellular		-	-	-
205-M-Sarcoma, histiocytic		-	-	-
14-M-Leukemia, monuc		-	2	-
<b>Spleen (5)</b>	Status >			
96-Fibrosis	Operator >	142	142	142
226-Hemorrhage	s	-	-	-
97-Necrosis	s	-	-	-
15-M-Leukemia, monuc	s	-	-	-
298-N-Sarcoma, histiocytic		-	2=	-

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Group	Sex	Dosage	Animal >	6836G697	6836G699
3	F	10 g/m3	Animal >	6836G696	6836G700
Tissue/diagnosis			Death code >	U2 FS U2	FS

Kidneys (9)	Status >	142	142	142	142
211-Atrophy	Operator >	-	-	-	-
149-Cyst	s	-	-	-	-
209-Degen, hyaline droplet	s	-	-	-	-
210-Dilatation	s	-	-	-	-
228-Infarct	s	-	-	-	-
16-Nephropathy, chronic	s	-	-	-	-
6-Pigment accum, tub epi	s	-	-	-	-
98-M-Leukemia, monuc	-	-	-	-	-
299-N-Sarcoma, histiocytic	-	-	-	-	-

Heart (5)	Status >	142	142	142	142
100-Degen, myocyte	Operator >	-	-	-	-
101-Fibrosis	s	-	-	-	-
175-Thrombus	s	-	-	-	-
36-Inflammation, focal, chronic	s	1	-	-	-
48-M-Leukemia, monuc	-	-	-	-	-

Stomach (4)	Status >	142	142	142	142
268-Ulcer	Operator >	-	-	-	-
103-Inflammation, mixed	s	-	-	-	-
217-M-Carcinoma, metastatic	-	-	-	-	-
220-M-Leukemia, monuc	-	-	-	-	-

Cecum (1)	Status >	142	142	142	142
104-N-Leukemia, monuc	Operator >	-	-	-	-

Urinary bladder (4)	Status >	142	142	142	142
186-Hemorrhage	Operator >	-	-	-	-
56-Inflammation, chronic	s	-	-	-	-
166-Hyperplasia, papillary	s	-	-	-	-
106-M-Leukemia, monuc	-	-	-	-	-

Duodenum (1)	Status >	142	142	142	142
275-Inflammation, acute	Operator >	-	-	-	-

Jejunum	Status >	U	U	U	U
	Operator >	-	-	-	-
	Operator >	142	142	142	142

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Group Sex Dosage	Animal >	6836G697	6836G699
3 F 10 g/m3	Animal >	6836G696	6836G700
Tissue/diagnosis	Death code >	U2 FS U2	U2 FS
Ileum (1)	Status >		
181-N-Leukemia, monuc	Operator >	142	142 142
Colon	Status >	U	U
	Operator >	142	142 142
Pancreas (2)	Status >		
212-Fibrosis	Operator >	142	142 142
110-M-Leukemia, monuc	s	-	-
Rectum (1)	Status >		
276-Metaplasia, squamous	Operator >	142	142 142
Adrenal glands (9)	Status >		
161-Cyst	Operator >	142	142 142
113-Degen, cytopl vacuol	s	-	-
170-Necrosis	s	-	-
118-Thrombus	s	-	-
117-Hyperplasia, cortical, focal	s	-	-
64-Hyperplasia, focal	p	-	-
116-B-Pheochrom, bgn	p	-	-
216-M-Carcinoma, metastatic	p	-	-
112-M-Leukemia, monuc	p	-	-
Uterus (11)	Status >		
277-Angiectasis	Operator >	142	142 142 142
7-Dilatation	s	-	-
167-Intussusception	s	-	-
162-Inflammation, mixed	p	-	-
49-Inflammation, chronic	s	-	-
20-Hyperplasia, cystic endom	s	-	-
286-B-Adenoma, endometrial	s	-	-
9-B-Polyp, endometrial stromal	s	-	-
213-M-Adenocarcinoma, endometr	l	1	1
279-M-Leiomyosar	-	-	-
165-M-Leukemia, monuc	-	-	-
Mesenteric LN (4)	Status >		
120-Hemorrhage	Operator >	142	142 142
173-Inflammation, chronic	s	-	-
206-N-Sarcoma, histiocytic	s	-	-
32-N-Leukemia, monuc	s	-	-

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Group	Sex	Dosage	Animal >	6836G697	6836G699
3	F	10 g/m3	Animal >	6836G696	6836G700
Tissue/diagnosis		Death code >	U2	FS	U2 FS
Ovaries (9)		Status >	142	142	142
284-Congestion		Operator >	-	-	-
154-Cyst, bursa		s	-	-	-
234-Cyst, epithelial		p	-	-	-
293-Cyst, follicular		p	-	-	-
291-Cyst, rete ovarii		s	-	-	-
25-Hemorrhage		s	-	-	-
290-Necrosis, mesenteric fat		s	-	-	-
207-N-Sarcoma, histiocytic		s	-	-	-
163-M-Leukemia, monoc		s	-	-	-
Sciatic nerve		Status >	U	*H	U
		Operator >	142	142	142
Muscle, skeletal (1)		Status >	142	142	142
208-N-Sarcoma, histiocytic		Operator >	-	-	-
Mammary gland (6)		Status >	142	142	142
159-Ectasia		s	-	-	-
190-Hyperplasia, lobular		s	-	-	-
156-B-Fibroadenoma		s	-	-	-
70-B-Fibroma		s	1=	-	-
235-M-Adenocarcinoma		s	-	-	-
224-M-AdenoCA arising in fibroAD		s	-	-	-
Skin (3)		Status >	142	142	142
252-Cyst, epith inc		Operator >	-	-	-
122-Fibrosis		p	-	-	-
253-Inflammation, mixed		s	-	-	1
Brain (6)		Status >	142	142	142
26-Compression		Operator >	-	-	-
192-Hemorrhage		s	-	-	-
155-Metaplasia, osseous, meninge		s	-	-	-
33-Necrosis		s	-	-	-
194-Inflammation, chronic		s	-	-	-
256-M-Astrocytoma, malignant		s	-	-	-
Eyes/optic nerve (7)		Status >	142	142	142
127-Atrophy		Operator >	-	-	-
129-Atrophy, retinal, unilat		s	-	-	2
130-Cataract		p	-	-	P=
133-Metaplasia, osseous, sclera		s	-	-	-

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Group Sex Dosage	Animal >	6836G697	6836G699
3 F 10 g/m3	Animal >	6836G696	6836G700
Tissue/diagnosis	Death code >	U2 FS U2	U2 FS
Eyes/optic nerve (7)	Status >		
58-Mineralization, corneal str	Operator >	142	142
126-Mineralization, scleral s	s	-	-
131-Neovascularization, corneal s	s	-	-
Bone, femur (1)	Status >		
179-New bone, endosteal s	Operator >	142	142
Spinal cord (3)	Status >		
27-Degen, white matter s	Operator >	142	142
197-Hemorrhage s	s	-	-
231-Necrosis, neuronal s	s	-	-
Nose/Turbinates 1 (5)	Status >		
260-Degeneration, hyal-resp epith s	Operator >	142	142
134-Inflammation, mixed s	s	-	-
34-Inflammation-nasolac duct s	s	3	1
136-Inflammation-resp epith s	s	-	-
199-Hyperplasia-resp epith s	s	-	-
Nose/Turbinates 2 (6)	Status >		
18-Degeneration, hyaline-olf epith s	Operator >	142	142
261-Degeneration, hyal-resp epith s	s	-	-
176-Metaplasia, sec-olfact epith s	s	2	2
270-Metaplasia, squ-olfact epith s	s	-	-
138-Inflammation, mixed s	s	-	-
227-Hyperplasia-resp epith s	s	-	-
Nose/Turbinates 3 (4)	Status >		
295-Degeneration-olfact epith s	Operator >	142	142
19-Degeneration, hyaline-olf epith s	s	-	-
232-Degeneration-resp epith s	s	3	-
142-Inflammation, mixed s	s	-	-
Nose/Turbinates 4 (3)	Status >		
285-Degeneration-olfact epith s	Operator >	142	142
164-Degeneration, hyaline-olf epith s	s	-	-
144-Inflammation, mixed s	s	-	-

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Group Sex Dosage	Animal >	6836G697	6836G699
3 F 10 g/m3	Animal >	6836G696	6836G700
Tissue/diagnosis	Death code >	U2 FS U2	U2 FS
Cervix (3)	Status >	M M M	M M M
168-B-Polyp, endometrial stromal	Operator >		
289-M-Leiomyosarcoma	Status >	M M M	M M M
269-N-Adenocarcinoma, endometr	Operator >		
Clitoral gland (3)	Status >	M M M	M M M
294-B-Adenoma	Operator >		
61-M-Carcinoma, squamous cell	Status >	M M M	M M M
271-N-Adenocarcinoma	Operator >		
Lymph node other (3)	Status >	M M M	M M M
60-Hemorrhage	Operator >		
59-Infiltration, histiocytic s	Status >	M M M	M M M
65-N-Leukemia, monuc	Operator >		
Popliteal LN (1)	Status >	M M M	M M M
66-N-Leukemia, monuc	Operator >		
Iliac LN (1)	Status >	M M M	M M M
67-N-Leukemia, monuc	Operator >		
Pancreatic LN (1)	Status >	M M M	M M M
68-N-Leukemia, monuc	Operator >		
Mediastinal LN (7)	Status >	142	142 142
29-Hemorrhage	Operator >		
3-Infiltration, histiocytic s	S	-	-
2-Pigmentation	S	-	-
273-B-Thymoma	S	-	-
219-M-Carcinoma, metastatic	S	-	-
265-N-Sarcoma, histiocytic	S	-	-
41-N-Leukemia, monuc	S	1=	-
Pituitary gland (10)	Status >	142	142 142
160-Angiectasis	Operator >		
37-Cyst	S	-	-
38-Degen	S	-	-
148-Hemorrhage	S	-	-
203-Necrosis	S	-	-
57-Hyperplasia, focal	S	-	-
31-B-Adenoma, pars distalis	S	-	-

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Group Sex Dosage	Animal >	6836G697	6836G699
3 F 10 g/m3	Animal >	6836G696	6836G700
Tissue/diagnosis	Death code >	U2 FS U2	U2 FS
Pituitary gland (10)	Status >	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-
288-M-Carcinoma		-	-
146-M-Leukemia, monuc		-	-
Tail (3)	Status >	M	M
	Operator >	M	M
202-Inflammation, acute	S		
152-Inflammation, mixed	S		
153-Hyperplasia/hyperkeratosis	S		
Bone, rib (1)	Status >	M	M
	Operator >	M	M
157-M-Osteosarcoma			
Mesentery (2)	Status >	M	M
	Operator >	M	M
171-Splenic tissue, "accessory"	P		
218-M-Carcinoma, metastatic			
Bone, vertebrae (1)	Status >	M	M
	Operator >	M	M
221-N-Leukemia, monuc			
Zymbal's gland (1)	Status >	M	M
	Operator >	M	M
223-M-Carcinoma, squamous cell			
Mediastinum (1)	Status >	M	M
	Operator >	M	M
233-N-Leukemia, monuc			
Bone, other (1)	Status >	M	M
	Operator >	M	M
272-Fracture	P		
Harderian gland (1)	Status >	M	M
	Operator >	M	M
278-Pigment	S		
Vagina (1)	Status >	M	M
	Operator >	M	M
287-M-Leiomyosarcoma			

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Group	Sex	Dosage	Animal >	6836G697	6836G699
3	F	10 g/m3	Animal >	6836G696	6836G700
Tissue/diagnosis			Death code >	U2 FS U2	U2 FS
Tiss.not specifi			Status >	M M M	M M M
			Operator >		

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Group	Sex	Dosage	Animal >	6838H752	6838H753	6838H754	6838H755	6838H756	6838H757	6838H758	6838H759	6838H760	6838H761	6838H762	6838H763	6838H764
4	F	20 g/m3	Animal >	6838H751	6838H753	6838H754	6838H755	6838H756	6838H757	6838H758	6838H759	6838H760	6838H761	6838H762	6838H763	6838H764
			Death code >	U2	U2	U2	FS	FS	FS	FS	FS	FS	FS	FS	U2	U2
			Tissue/diagnosis													
			Lungs (12)													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >											1		
			40-Alveolar histiocytosis													
			30-Congestion													
			71-Fibrosis, focal													
			182-Hemorrhage													
			177-Inflammation, acute													
			72-Inflammation, mixed													
			236-Inflammation, granulomatous													
			10-Hyperplasia, alv. epi. focal													
			214-N-Carcinoma, metastatic		2=											
			11-N-Leukemia, monoc - cap invol						2				1			2
			74-N-Leukemia, monoc - inv invol													
			204-N-Sarcoma, histiocytic	2=												
			Trachea (4)													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >													
			22-Inflammation, acute													
			75-Inflammation, mixed													
			76-Hyperplasia													2
			238-N-Leukemia, monoc													
			Bronchial (TBLN) (3)													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >													*
			21-Hemorrhage													
			297-Inflammation, mixed													
			62-N-Leukemia, monoc													
			Thyroid glands (8)													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >													
			79-Cyst, follicular													
			77-Hyperplasia, C-cell, focal													
			81-Hyperplasia, follicular cell													2
			35-B-Adenoma, C-cell													
			78-B-Adenoma, follicular cell													1
			174-M-Carcinoma, C-cell													
			80-M-Carcinoma, follicular cell													
			178-M-Leukemia, monoc													
			Parathyroid (2)													
			Status >	mH	mH							m	m			mH
			Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142
			241-Hyperplasia, focal													
			296-B-Adenoma													
			Aorta (1)													
			Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
			Operator >													
			83-N-Leukemia, monoc - inv invol													

Group Sex Dosage	Animal >	6838H752	6838H753	6838H754	6838H755	6838H756	6838H757	6838H758	6838H759	6838H760	6838H761	6838H762	6838H764		
4 F 20 g/m3	Animal >	6838H751	6838H752	6838H753	6838H754	6838H755	6838H756	6838H757	6838H758	6838H759	6838H760	6838H761	6838H762	6838H763	6838H765
Tissue/diagnosis	Death code >	U2	U2	U2	FS	FS	FS	U2	FS	FS	FS	FS	FS	U2	FS
Esophagus	Status >	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	1	-	-	-	1	1	-	1	-	-	-
12-Metaplasia, squamous	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Hyperplasia	s	-	2	-	-	-	-	-	-	-	-	-	-	1	-
23-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42-Inflammation, mixed	s	-	2	-	-	-	-	-	-	1	2	2	-	-	-
53-Inflammation, chronic	s	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Salivary gland (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43-M-Leukemia, monuc															
Mandibular LN (2)	Status >	*													
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
89-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44-N-Leukemia, monuc															
Liver (15)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45-Angiectasis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
158-Congestion	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90-Fatty Change	s	-	-	-	-	-	-	1	-	-	-	-	-	-	-
150-Foci cell alter, basophilic	s	-	-	-	-	-	-	2	-	-	-	-	-	-	-
92-Hdn	p	-	-	-	-	-	P=	-	-	-	-	-	-	-	-
4-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	3=	-
230-Thrombus	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13-Vacuoliz cyto	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-Inflammation, acute	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54-Inflammation, chronic	s	-	-	1	1	1	1	-	-	1	-	-	-	-	1
46-Hyperplasia, biliary	s	-	-	1	1	1	1	-	-	1	-	-	-	-	1
47-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91-B-Adenoma, hepatocellular															
205-M-Sarcoma, histiocytic															
14-M-Leukemia, monuc															
Spleen (5)	Status >	2=	2	1	-	-	-	2	-	1	1	-	-	-	2
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
96-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
226-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
97-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-M-Leukemia, monuc															
298-N-Sarcoma, histiocytic															

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Group Sex Dosage	Animal >	6838H752	6838H754	6838H756	6838H758	6838H760	6838H762	6838H764
4 F 20 g/m3	Animal >	6838H751	6838H753	6838H755	6838H757	6838H759	6838H761	6838H763
Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	FS	U2

Kidneys (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
211-Atrophy	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
149-Cyst	S	-	-	-	-	-	-	-	-	-	-	-	-
209-Degen, hyaline droplet	S	4	-	3=	3=	-	-	-	2=	-	-	-	-
210-Dilatation	S	-	-	-	-	-	-	-	-	-	-	-	-
228-Infarct	S	-	-	-	-	-	-	-	-	-	-	-	-
16-Nephropathy, chronic	S	1	1	2	2	1	2	2	2	2	1	1	1
6-Pigment accum, tub epi	S	-	-	-	-	-	-	-	-	-	-	-	-
98-M-Leukemia, monoc	S	-	-	-	-	-	-	-	-	-	-	-	-
299-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-	-	-	-	-	-

Heart (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
100-Degen, myocyte	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
101-Fibrosis	S	-	-	-	-	-	-	-	-	-	-	-	-
175-Thrombus	S	-	-	-	-	-	-	-	-	-	-	-	-
36-Inflammation, focal, chronic	S	1	1	1	2	1	1	1	1	1	1	1	1
48-M-Leukemia, monoc	S	-	-	-	-	-	-	-	-	-	-	-	-

Stomach (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
268-Ulcer	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
103-Inflammation, mixed	S	-	-	-	-	-	-	-	-	-	-	-	-
217-M-Carcinoma, metastatic	S	-	-	-	-	-	-	-	-	-	-	-	-
220-M-Leukemia, monoc	S	-	-	-	-	-	-	-	-	-	-	-	-

Cecum (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
104-N-Leukemia, monoc	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
Urinary bladder (4)	Operator >	142	142	142	142	142	142	142	142	142	142	142	142
186-Hemorrhage	S	-	-	-	-	-	-	-	-	-	-	-	-
56-Inflammation, chronic	S	1	-	-	-	-	-	-	-	-	-	-	-
166-Hyperplasia, papillary	S	-	-	-	-	-	-	-	-	-	-	-	-
106-M-Leukemia, monoc	S	-	-	-	-	-	-	-	-	-	-	-	-

Duodenum (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
275-Inflammation, acute	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
Jejunum	Operator >	U	U	U	U	U	U	U	U	U	U	U	U

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Group Sex Dosage	6838H751	6838H752	6838H753	6838H754	6838H755	6838H756	6838H757	6838H758	6838H759	6838H760	6838H761	6838H762	6838H763	6838H764
4 F 20 g/m3	U2	U2	U2	FS	FS	FS	U2	FS	FS	FS	FS	FS	U2	U2
Tissue/diagnosis														
Ileum (1)					H									
181-N-Leukemia, monuc	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Colon														
Pancreas (2)														
212-Fibrosis														
110-M-Leukemia, monuc	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Rectum (1)														
276-Metaplasia, squamous	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Adrenal glands (9)														
161-Cyst	142	142	142	142	142	142	142	142	142	142	142	142	142	142
113-Degen, cytopl vacuol														
170-Necrosis														
118-Thrombus														
117-Hyperplasia, cortical, focal														
64-Hyperplasia, focal														
116-B-Pheochrom, bgn														
216-M-Carcinoma, metastatic														
112-M-Leukemia, monuc														
Uterus (11)														
277-Angiectasis	142	142	142	142	142	142	142	142	142	142	142	142	142	142
7-Dilatation														
167-Intussusception														
162-Inflammation, mixed														
49-Inflammation, chronic														
20-Hyperplasia, cystic endom														
286-B-Adenoma, endometrial														
9-B-Polyp, endometrial stromal														
213-M-Adenocarcinoma, endometr														
279-M-Leiomyosar														
165-M-Leukemia, monuc														
Mesenteric LN (4)														
120-Hemorrhage	142	142	142	142	142	142	142	142	142	142	142	142	142	142
173-Inflammation, chronic														
206-N-Sarcoma, histiocytic														
32-N-Leukemia, monuc														

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4 F 20 g/m3	Animal >	6838H751	6838H752	6838H753	6838H754	6838H755	6838H756	6838H757	6838H758	6838H759	6838H760	6838H761	6838H762	6838H764
Tissue/diagnosis	Death code >	U2	U2	U2	FS	FS	FS	U2	FS	FS	FS	FS	U2	U2

Ovaries (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
284-Congestion	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
154-Cyst, bursa	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
234-Cyst, epithelial	p	-	-	-	-	-	-	-	P=	-	-	-	-	-	-
293-Cyst, follicular	p	-	-	-	-	-	-	-	-	-	-	-	-	-	-
291-Cyst, rete ovarii	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
290-Necrosis, mesenteric fat	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
207-N-Sarcoma, histiocytic	l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
163-M-Leukemia, monoc	l=	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciatic nerve	Status >	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
Muscle, skeletal (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
208-N-Sarcoma, histiocytic	Operator >	l	-	-	-	-	-	-	-	-	-	-	-	-	-
Mammary gland (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
159-Ectasia	Operator >	s	-	-	-	-	-	-	-	-	-	-	-	-	-
190-Hyperplasia, lobular	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
156-B-Fibroadenoma	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70-B-Fibroma	l=	-	-	-	-	-	-	-	-	-	-	-	-	-	-
235-M-Adenocarcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
224-M-AdenoCA arising in fibroad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skin (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
252-Cyst, epith inc	Operator >	p	-	-	-	-	-	-	-	-	-	-	-	-	-
122-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
253-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brain (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
26-Compression	Operator >	s	-	-	-	-	-	-	-	-	-	-	-	-	-
192-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
155-Metaplasia, osseous, meninge	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
194-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
256-M-Astrocytoma, malignant	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
127-Atrophy	Operator >	s	-	-	-	-	-	-	-	-	-	-	-	-	-
129-Atrophy, retinal, unilat	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
130-Cataract	p	-	-	-	-	-	-	-	-	-	-	-	-	-	-
133-Metaplasia, osseous, sclera	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6838H752	6838H753	6838H754	6838H755	6838H756	6838H757	6838H758	6838H759	6838H760	6838H761	6838H762	6838H763	6838H764	
4 F 20 g/m3	Animal >	6838H751	6838H752	6838H753	6838H754	6838H755	6838H756	6838H757	6838H758	6838H759	6838H760	6838H761	6838H762	6838H763	6838H764
Tissue/diagnosis	Death code >	U2	U2	U2	FS	FS	FS	U2	FS	FS	FS	FS	FS	U2	U2
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
58-Mineralization, corneal str s	Operator >	-	-	1	-	-	-	-	1	-	-	-	-	-	-
126-Mineralization, scleral s	s	-	2	-	-	-	-	-	-	-	-	-	-	-	1
131-Neovascularization, corneal s	s	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Bone, femur (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
179-New bone, endosteal s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
27-Degen, white matter s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
197-Hemorrhage s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
231-Necrosis, neuronal s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 1 (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
260-Degeneration,hyal-resp epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
134-Inflammation, mixed s	s	2	2	2	-	-	2	-	-	-	-	-	-	-	-
34-Inflammation-nasolac duct s	s	3	2	2	3	-	4	3	3	3	-	4	-	-	-
136-Inflammation-resp epith s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
199-Hyperplasia-resp epith s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 2 (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
18-Degeneration,hyaline-olf epith s	Operator >	2	-	-	-	-	-	-	-	-	-	-	-	-	-
261-Degeneration,hyaline-olf epith s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
176-Metaplasia, sec-olfact epith s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
270-Metaplasia, squ-olfact epith s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138-Inflammation, mixed s	s	-	1	-	-	-	-	-	-	-	-	-	-	-	-
227-Hyperplasia-resp epith s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
295-Degeneration-olfact epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19-Degeneration,hyaline-olf epith s	s	-	2	-	-	-	-	-	-	-	-	-	-	-	-
232-Degeneration-resp epith s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
142-Inflammation, mixed s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 4 (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142	142
285-Degeneration-olfact epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-	-
164-Degeneration,hyaline-olf epith s	s	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144-Inflammation, mixed s	s	-	-	1	-	-	-	-	-	-	-	-	-	-	-

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4 F 20 g/m3	Animal >	6838H751	6838H753	6838H755	6838H757	6838H761	6838H763	6838H765
Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	U2	FS
Cervix (3)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
168-B-Polyp, endometrial stromal	Status >	M	M	M	M	M	M	M
289-M-Leiomyosarcoma	Operator >							
269-N-Adenocarcinoma, endometr	Status >	M	M	M	M	M	M	M
Clitoral gland (3)	Operator >							
294-B-Adenoma	Status >	M	M	M	M	M	M	M
61-M-Carcinoma, squamous cell	Operator >							
271-N-Adenocarcinoma	Status >	M	M	M	M	M	M	M
Lymph node other (3)	Operator >							
60-Hemorrhage	Status >	M	M	M	M	M	M	M
59-Infiltration, histiocytic	Operator >	142						
65-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
66-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
Iliac LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
67-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
68-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
Mediastinal LN (7)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
29-Hemorrhage	Status >	M	M	M	M	M	M	M
3-Infiltration, histiocytic	Operator >							
2-Pigmentation	Status >	M	M	M	M	M	M	M
273-B-Thymoma	Operator >							
219-M-Carcinoma, metastatic	Status >	M	M	M	M	M	M	M
265-N-Sarcoma, histiocytic	Operator >							
41-N-Leukemia, monuc	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
Pituitary gland (10)	Status >	M	M	M	M	M	M	M
Operator >	Operator >							
160-Angiectasis	Status >	M	M	M	M	M	M	M
37-Cyst	Operator >							
38-Degen	Status >	M	M	M	M	M	M	M
148-Hemorrhage	Operator >							
203-Necrosis	Status >	M	M	M	M	M	M	M
57-Hyperplasia, focal	Operator >							
31-B-Adenoma, pars distalis	Status >	M	M	M	M	M	M	M
Operator >	Operator >							

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Tissue/diagnosis	Death code >	U2	U2	FS	U2	FS	FS	U2
Pituitary gland (10)	Status >	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-
288-M-Carcinoma		-	-	-	-	-	-	-
146-M-Leukemia, monoc		-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >			142				
152-Inflammation, mixed	s			3				
153-Hyperplasia/hyperkeratosis	s			4=				
Bone, rib (1)	Status >	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >					142		
Mesentery (2)	Status >	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >		142					
218-M-Carcinoma, metastatic	p		1					
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >							
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >							
Mediastinum (1)	Status >	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >							
Bone, other (1)	Status >	M	M	M	M	M	M	M
272-Fracture	Operator >							
Harderian gland (1)	Status >	M	M	M	M	M	M	M
278-Pigment	Operator >							
Vagina (1)	Status >	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >							

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Lovelace Respiratory  
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Rat/F344/N

Group	Sex	Dosage	Animal >	6838H752	6838H754	6838H756	6838H758	6838H760	6838H762	6838H764
4	F	20 g/m3	Animal >	6838H751	6838H753	6838H755	6838H757	6838H759	6838H761	6838H763
			Death code >	U2	U2	FS	U2	FS	FS	U2
			Tissue/diagnosis							
				M	M	M	M	M	M	M
			Status >	M	M	M	M	M	M	M
			Operator >							
			Tiss.not specifi							

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Lovellace Respiratory  
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Group Sex Dosage	6838H767	6838H769	6838H771	6838H773	6838H775	6838H777	6838H779
4 F 20 g/m3	6838H766	6838H768	6838H770	6838H772	6838H774	6838H776	6838H778
Tissue/diagnosis	U2 FS	FS	U2 FS	U2 FS	U2 FS	FS	FS
Lungs (12)	142	142	142	142	142	142	142
Status >	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
40-Alveolar histiocytosis	-	-	1=	-	-	1	-
30-Congestion	-	-	-	-	-	-	-
71-Fibrosis, focal	-	-	-	-	-	-	-
182-Hemorrhage	2=	-	-	1=	-	-	-
177-Inflammation, acute	-	-	-	-	-	-	-
72-Inflammation, mixed	-	-	-	-	-	-	-
236-Inflammation, granulomatous	-	-	2=	-	-	-	-
10-Hyperplasia, alv. epi. focal	-	-	-	-	-	-	-
214-N-Carcinoma, metastatic	-	-	-	-	-	-	-
11-N-Leukemia,monuc - cap invol	2	1	2	2=	2	-	2
74-N-Leukemia,monuc - inv invol	-	-	-	-	-	-	-
204-N-Sarcoma, histiocytic	-	-	-	-	-	-	-
Trachea (4)	142	142	142	142	142	142	142
Status >	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
22-Inflammation, acute	-	-	-	-	-	-	-
75-Inflammation, mixed	-	-	-	-	-	-	-
76-Hyperplasia	-	-	-	-	-	-	-
238-N-Leukemia, monuc	-	-	-	-	-	-	-
Bronchial (TBLN) (3)	142	142	142	142	142	142	142
Status >	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
21-Hemorrhage	-	-	-	-	-	-	-
297-Inflammation, mixed	-	-	-	-	-	2	-
62-N-Leukemia, monuc	-	-	-	-	-	-	-
Thyroid glands (8)	142	142	142	142	142	142	142
Status >	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
79-Cyst, follicular	-	-	-	-	-	-	-
77-Hyperplasia, C-cell, focal	2	-	-	2	-	-	-
81-Hyperplasia, follicular cell	-	-	-	-	3=	-	-
35-B-Adenoma, C-cell	-	-	-	-	-	-	-
78-B-Adenoma, follicular cell	-	-	1	-	-	-	-
174-M-Carcinoma, C-cell	-	-	-	-	-	-	-
80-M-Carcinoma, follicular cell	-	-	-	-	-	-	-
178-M-Leukemia, monuc	-	-	1	-	-	-	-
Parathyroid (2)	m	142	142	mH	142	mH	mH
Status >	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
241-Hyperplasia, focal	-	-	-	-	-	-	-
296-B-Adenoma	-	-	-	-	-	-	-
Aorta (1)	142	142	142	142	142	142	142
Status >	142	142	142	142	142	142	142
Operator >	142	142	142	142	142	142	142
83-N-Leukemia,monuc - inv invol	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6838H769	6838H771	6838H773	6838H775	6838H777	6838H779
4 F 20 g/m3	Animal >	6838H766	6838H770	6838H772	6838H774	6838H776	6838H778
Tissue/diagnosis	Death code >	U2 FS	U2 FS	U2 FS	U2 FS	U2 FS	U2 FS
Esophagus	Status >	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142
Operator >	Operator >	1	1	1	1	1	1
12-Metaplasia, squamous	s	-	-	-	-	-	-
1-Hyperplasia	s	-	1	1	2	2	-
23-Inflammation, acute	s	-	-	-	-	-	-
42-Inflammation, mixed	s	1	2	2	1	1	1
53-Inflammation, chronic	s	-	-	-	-	2	2
Salivary gland (1)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
43-M-Leukemia, monuc	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
Mandibular LN (2)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
89-Hemorrhage	s	-	-	1	-	-	-
44-N-Leukemia, monuc	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
Liver (15)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
45-Angiectasis	s	-	-	-	-	-	-
158-Congestion	s	-	-	-	-	-	-
90-Fatty Change	s	-	-	-	-	-	-
150-Foci cell alter, basophilic	s	-	-	-	-	-	-
92-Hdn	p	-	-	-	-	-	-
4-Necrosis	s	-	1	-	-	-	1
230-Thrombus	s	-	-	-	-	-	-
13-Vacuoliz cyto	s	-	-	-	-	-	-
24-Inflammation, acute	s	-	-	-	-	-	-
54-Inflammation, chronic	s	-	-	-	-	1	-
46-Hyperplasia, biliary	s	1	2	2	1	1	1
47-Hyperplasia, hepato, regen	s	-	-	1	-	-	-
91-B-Adenoma, hepatocellular	s	-	-	-	-	-	-
205-M-Sarcoma, histiocytic	s	-	-	-	-	-	-
14-M-Leukemia, monuc	s	2	1	1	2	2	2
Spleen (5)	Status >	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-
96-Fibrosis	s	-	-	-	-	-	-
226-Hemorrhage	s	-	-	-	-	-	3
97-Necrosis	s	-	-	4	-	-	3
15-M-Leukemia, monuc	s	2	1	1	2	2	2
298-N-Sarcoma, histiocytic	s	-	-	-	-	-	-

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Lovelace Respiratory  
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Group Sex Dosage	Animal >	6838H769	6838H771	6838H773	6838H775	6838H777	6838H779
4 F 20 g/m3	Animal >	6838H768	6838H770	6838H772	6838H774	6838H776	6838H778
Tissue/diagnosis	Death code >	FS	U2	FS	U2	FS	FS
Kidneys (9)	Status >	142	142	142	142	142	142
211-Atrophy	Operator >	-	-	-	-	-	-
149-Cyst	S	-	-	-	-	-	-
209-Degen, hyaline droplet	S	-	-	-	-	-	-
210-Dilatation	S	-	-	-	-	-	-
228-Infarct	S	-	-	-	-	-	-
16-Nephropathy, chronic	S	1	2	1	1	2	2
6-Pigment accum, tub epi	S	-	-	-	-	-	-
98-M-Leukemia, monuc	S	-	-	-	-	-	-
299-N-Sarcoma, histiocytic	S	-	-	-	-	-	-
Heart (5)	Status >	142	142	142	142	142	142
100-Degen, myocyte	Operator >	-	-	-	-	-	-
101-Fibrosis	S	-	-	-	-	-	-
175-Thrombus	S	-	-	-	-	-	-
36-Inflammation, focal, chronic	S	1	1	1	1	1	1
48-M-Leukemia, monuc	S	-	-	-	-	-	-
Stomach (4)	Status >	142	142	142	142	142	142
268-Ulcer	Operator >	-	-	-	-	-	-
103-Inflammation, mixed	S	-	-	-	-	-	-
217-M-Carcinoma, metastatic	S	-	-	-	-	-	-
220-M-Leukemia, monuc	S	-	-	-	-	-	-
Cecum (1)	Status >	142	142	142	142	142	142
104-N-Leukemia, monuc	Operator >	-	-	-	-	-	-
Urinary bladder (4)	Status >	142	142	142	142	142	142
186-Hemorrhage	Operator >	-	-	-	-	-	-
56-Inflammation, chronic	S	-	-	-	1	-	-
166-Hyperplasia, papillary	S	-	-	-	-	-	-
106-M-Leukemia, monuc	S	-	-	-	-	-	-
Duodenum (1)	Status >	142	142	142	142	142	142
275-Inflammation, acute	Operator >	-	-	-	-	-	-
Jejunum	S	-	-	-	-	-	-
	Status >	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142

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Group Sex Dosage	6838H767	6838H769	6838H771	6838H773	6838H775	6838H777	6838H779
4 F 20 g/m3	6838H766	6838H768	6838H770	6838H772	6838H774	6838H776	6838H778
Tissue/diagnosis	U2 FS	FS	U2 FS	U2 FS	U2 FS	FS	FS
Ileum (1)							
181-N-Leukemia, monuc	142	142	142	142	142	142	142
Colon							
Pancreas (2)							
212-Fibrosis							
110-M-Leukemia, monuc							
Rectum (1)							
276-Metaplasia, squamous							
Adrenal glands (9)							
161-Cyst							
113-Degen, cytopl vacuol							
170-Necrosis							
118-Thrombus							
117-Hyperplasia, cortical, focal							
64-Hyperplasia, focal							
116-B-Pheochrom, bgn							
216-M-Carcinoma, metastatic							
112-M-Leukemia, monuc							
Uterus (11)							
277-Angiectasis							
7-Dilatation							
167-Intussusception							
162-Inflammation, mixed							
49-Inflammation, chronic							
20-Hyperplasia, cystic endom							
286-B-Adenoma, endometrial							
9-B-Polyp, endometrial stromal							
213-M-Adenocarcinoma, endometr							
279-M-Leiomyosar							
165-M-Leukemia, monuc							
Mesenteric LN (4)							
120-Hemorrhage							
173-Inflammation, chronic							
206-N-Sarcoma, histiocytic							
32-N-Leukemia, monuc							

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Group Sex Dosage	Animal >	6838H769	6838H771	6838H773	6838H775	6838H777	6838H779
4 F 20 g/m3	Animal >	6838H766	6838H770	6838H772	6838H774	6838H776	6838H778
Tissue/diagnosis	Death code >	U2 FS	U2 FS	U2 FS	U2 FS	U2 FS	U2 FS
Ovaries (9)	Status >	142	142	142	142	142	142
Operator >	H	142	142	142	142	142	142
284-Congestion	S	-	-	-	-	-	-
154-Cyst, bursa	P	-	-	-	-	-	-
234-Cyst, epithelial	P	-	-	-	-	-	-
293-Cyst, follicular	P	-	-	-	-	-	-
291-Cyst, rete ovarii	S	-	-	-	-	-	-
25-Hemorrhage	S	-	-	-	-	-	-
290-Necrosis, mesenteric fat	S	-	-	-	-	-	-
207-N-Sarcoma, histiocytic		-	-	-	-	-	-
163-M-Leukemia, monoc		-	-	-	-	-	-
Sciatic nerve	Status >	U	U	U	U	U	U
Operator >		142	142	142	142	142	142
Muscle, skeletal (1)	Status >	142	142	142	142	142	142
Operator >		-	-	-	-	-	-
208-N-Sarcoma, histiocytic		-	-	-	-	-	-
Mammary gland (6)	Status >	*H	*H	*H	*H	*H	*H
Operator >		142	142	142	142	142	142
159-Ectasia	S	-	2	-	-	-	-
190-Hyperplasia, lobular	S	-	-	2	-	-	-
156-B-Fibroadenoma		-	-	1=	-	-	-
70-B-Fibroma		-	-	-	-	-	-
235-M-Adenocarcinoma		-	-	-	-	-	-
224-M-AdenoCA arising in fibroAD		-	-	-	-	-	-
Skin (3)	Status >		*H				
Operator >		142	142	142	142	142	142
252-Cyst, epith inc	P	-	-	-	-	-	-
122-Fibrosis	S	-	-	-	-	-	-
253-Inflammation, mixed	S	-	-	-	-	-	-
Brain (6)	Status >						
Operator >		142	142	142	142	142	142
26-Compression	S	-	2=	-	-	-	-
192-Hemorrhage	S	-	-	-	-	-	-
155-Metaplasia, osseous, meninge	S	-	-	-	-	-	-
33-Necrosis	S	-	-	-	-	-	-
194-Inflammation, chronic	S	-	-	-	-	-	-
256-M-Astrocytoma, malignant		-	-	-	-	-	-
Eyes/optic nerve (7)	Status >						
Operator >		142	142	142	142	142	142
127-Atrophy	S	-	4=	-	-	4	-
129-Atrophy, retinal, unilat	S	-	-	-	-	-	-
130-Cataract	P	-	-	-	-	P=	-
133-Metaplasia, osseous, sclera	S	-	-	-	-	-	-

Group Sex Dosage	Animal >	6838H766	6838H767	6838H769	6838H770	6838H771	6838H772	6838H773	6838H774	6838H775	6838H776	6838H777	6838H779
4 F 20 g/m3	Animal >	6838H766	6838H767	6838H769	6838H770	6838H771	6838H772	6838H773	6838H774	6838H775	6838H776	6838H777	6838H779
Tissue/diagnosis	Death code >	U2	FS	FS	U2	FS	U2	FS	U2	U2	FS	FS	FS
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
58-Mineralization, corneal str s	Operator >	142	142	142	142	142	142	142	142	142	142	142	142
126-Mineralization, scleral s	Operator >	1	1	-	-	-	-	-	-	-	-	-	-
131-Neovascularization, corneal s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
Bone, femur (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
179-New bone, endosteal s	Operator >	-	-	-	1	-	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
27-Degen, white matter s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
197-Hemorrhage s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
231-Necrosis, neuronal s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 1 (5)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
260-Degeneration,hyal-resp epith s	Operator >	2	-	-	-	-	-	-	-	-	-	-	-
134-Inflammation, mixed s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
34-Inflammation-nasolac duct s	Operator >	4	4	2	2	3	3	3	4	4	4	4	2
136-Inflammation-resp epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
199-Hyperplasia-resp epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	2
Nose/Turbinates 2 (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
18-Degeneration,hyaline-olf epith s	Operator >	1	1	2	1	-	-	-	-	-	2	1	-
261-Degeneration,hyaline-olf epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	1
176-Metaplasia, sec-olfact epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
270-Metaplasia, squ-olfact epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
138-Inflammation, mixed s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
227-Hyperplasia-resp epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
295-Degeneration-olfact epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
19-Degeneration,hyaline-olf epith s	Operator >	-	-	3	-	-	-	-	-	-	2	-	-
232-Degeneration-resp epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
142-Inflammation, mixed s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
Nose/Turbinates 4 (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
285-Degeneration-olfact epith s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
164-Degeneration,hyaline-olf epith s	Operator >	-	-	1	-	-	-	-	-	-	-	-	-
144-Inflammation, mixed s	Operator >	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6838H769	6838H770	6838H771	6838H772	6838H773	6838H774	6838H775	6838H776	6838H777	6838H779
4 F 20 g/m3	Animal >	6838H766	6838H768	6838H770	6838H772	6838H774	6838H776	6838H778	6838H780		
Tissue/diagnosis	Death code >	U2 FS	FS FS	U2 FS	U2 FS	U2 FS	U2 FS	U2 FS	FS FS	FS FS	FS FS
Cervix (3)	Status >	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >			142							
168-B-Polyp, endometrial stromal											
289-M-Leiomyosarcoma											
269-N-Adenocarcinoma, endometr											
Clitoral gland (3)	Status >	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >										
294-B-Adenoma											
61-M-Carcinoma, squamous cell											
271-N-Adenocarcinoma											
Lymph node other (3)	Status >	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >										
60-Hemorrhage											
59-Infiltration, histiocytic s											
65-N-Leukemia, monuc											
Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >										
66-N-Leukemia, monuc											
Iliac LN (1)	Status >	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >										
67-N-Leukemia, monuc											
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M	M	M
Operator >	Operator >										
68-N-Leukemia, monuc											
Mediastinal LN (7)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >										
29-Hemorrhage											
3-Infiltration, histiocytic s											
2-Pigmentation											
273-B-Thymoma											
219-M-Carcinoma, metastatic											
265-N-Sarcoma, histiocytic											
41-N-Leukemia, monuc		1			1					1	
Pituitary gland (10)	Status >	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >										
160-Angiectasis											
37-Cyst											
38-Degen											
148-Hemorrhage											
203-Necrosis											
57-Hyperplasia, focal											
31-B-Adenoma, pars distalis											

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Lovelace Respiratory  
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Rat/F344/N

Group Sex Dosage	6838H766	6838H767	6838H769	6838H770	6838H771	6838H772	6838H773	6838H774	6838H775	6838H776	6838H777	6838H778	6838H779
4 F 20 g/m3	U2	FS	FS	U2	FS	FS	U2	U2	U2	FS	FS	FS	FS
Tissue/diagnosis	Animal >												
	Death code >												
Pituitary gland (10)	Status >												
274-B-Adenoma, pars intermedia	Operator >												
288-M-Carcinoma	s	s	s	s	s	s	s	s	s	s	s	s	s
146-M-Leukemia, monoc	1	1	1	1	1	1	1	1	1	1	1	1	1
Tail (3)	M	M	M	M	M	M	M	M	M	M	M	M	M
202-Inflammation, acute	M	M	M	M	M	M	M	M	M	M	M	M	M
152-Inflammation, mixed	Operator >												
153-Hyperplasia/hyperkeratosis	s	s	s	s	s	s	s	s	s	s	s	s	s
Bone, rib (1)	M	M	M	M	M	M	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >												
Mesentery (2)	M	M	M	M	M	M	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >												
218-M-Carcinoma, metastatic	p	p	p	p	p	p	p	p	p	p	p	p	p
Bone, vertebrae (1)	M	M	M	M	M	M	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >												
Zymbal's gland (1)	M	M	M	M	M	M	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >												
Mediastinum (1)	M	M	M	M	M	M	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >												
Bone, other (1)	M	M	M	M	M	M	M	M	M	M	M	M	M
272-Fracture	Operator >												
Harderian gland (1)	p	p	p	p	p	p	p	p	p	p	p	p	p
278-Pigment	Operator >												
Vagina (1)	M	M	M	M	M	M	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >												

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Group	Sex	Dosage	Animal >	6838H767	6838H769	6838H770	6838H771	6838H773	6838H775	6838H777	6838H779
4	F	20 g/m3	Animal >	6838H766	6838H768	6838H770	6838H771	6838H772	6838H774	6838H776	6838H778
		Tissue/diagnosis	Death code >	U2	FS	U2	FS	U2	U2	FS	FS
		Tiss.not specifi	Status >	M	M	M	M	M	M	M	M
			Operator >								

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Group Sex Dosage	Animal >	6838H782	6838H784	6838H786	6838H788	6838H790	6838H792	6838H794
4 F 20 g/m3	Animal >	6838H781	6838H783	6838H785	6838H787	6838H789	6838H791	6838H793
Tissue/diagnosis	Death code >	FS	U2	FS	FS	FS	FS	FS
Lungs (12)	Status >	142	142	142	142	142	142	142
40-Alveolar histiocytosis	Operator >	1	-	-	-	1	-	-
30-Congestion	s	-	-	-	-	-	-	-
71-Fibrosis, focal	s	-	-	-	-	-	-	-
182-Hemorrhage	s	-	-	-	-	-	1	-
177-Inflammation, acute	s	-	-	-	-	-	-	-
72-Inflammation, mixed	s	-	-	-	-	-	-	-
236-Inflammation, granulomatous	s	-	-	-	-	-	-	-
10-Hyperplasia, alv. epi. focal	s	-	-	-	-	-	-	-
214-N-Carcinoma, metastatic	s	-	-	-	-	-	-	-
11-N-Leukemia, monoc - cap invol	s	-	-	2=	1	-	2	1
74-N-Leukemia, monoc - inv invol	s	-	-	-	-	-	-	-
204-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
Trachea (4)	Status >	142	142	142	142	142	142	142
22-Inflammation, acute	Operator >	-	-	-	-	-	-	-
75-Inflammation, mixed	s	-	-	-	-	-	-	-
76-Hyperplasia	s	-	-	-	-	-	-	-
238-N-Leukemia, monoc	s	-	-	-	-	-	-	-
Bronchial (TBLN) (3)	Status >	142	142	142	142	142	142	142
21-Hemorrhage	Operator >	2	-	-	-	-	-	-
297-Inflammation, mixed	s	-	-	-	-	-	-	-
62-N-Leukemia, monoc	s	-	-	1	-	-	-	-
Thyroid glands (8)	Status >	142	142	142	142	142	142	142
79-Cyst, follicular	Operator >	-	-	-	-	-	-	-
77-Hyperplasia, C-cell, focal	p	3	-	-	-	2	-	-
81-Hyperplasia, follicular cell	s	-	-	-	-	-	-	-
35-B-Adenoma, C-cell	s	-	-	-	-	-	1=	-
78-B-Adenoma, follicular cell	s	-	-	-	-	-	-	-
174-M-Carcinoma, C-cell	s	-	-	-	-	-	1	-
80-M-Carcinoma, follicular cell	s	-	-	-	-	-	-	-
178-M-Leukemia, monoc	s	-	-	-	-	-	-	-
Parathyroid (2)	Status >	142	142	142	142	142	142	142
241-Hyperplasia, focal	Operator >	-	-	-	-	-	-	-
296-B-Adenoma	s	-	-	-	-	-	-	-
Aorta (1)	Status >	142	142	142	142	142	142	142
83-N-Leukemia, monoc - inv invol	Operator >	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6838H782	6838H784	6838H786	6838H788	6838H790	6838H792	6838H794
4 F 20 g/m3	Animal >	6838H781	6838H783	6838H785	6838H787	6838H789	6838H791	6838H793
Tissue/diagnosis	Death code >	FS	U2	U2	U1	FS	FS	FS
Esophagus	Status >	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142
Larynx (5)	Status >	142	142	142	142	142	142	142
12-Metaplasia, squamous	Operator >	s	1	-	1	-	-	-
1-Hyperplasia	s	-	-	-	-	1	1	-
23-Inflammation, acute	s	-	-	-	-	-	-	-
42-Inflammation, mixed	s	-	2	-	1	2	1	1
53-Inflammation, chronic	s	1	1	-	-	1	-	-
Salivary gland (1)	Status >	142	142	142	142	142	142	142
43-M-Leukemia, monuc	Operator >	-	-	-	-	-	-	-
Mandibular LN (2)	Status >	142	142	142	142	142	142	142
89-Hemorrhage	Operator >	s	-	-	-	-	-	-
44-N-Leukemia, monuc	s	-	-	1	-	-	-	-
Liver (15)	Status >	142	142	142	142	142	142	142
45-Angiectasis	Operator >	s	-	-	-	-	1	-
158-Congestion	s	-	-	-	-	-	-	-
90-Fatty Change	s	-	2	-	2	-	-	-
150-Foci cell alter, basophilic	s	-	-	-	-	-	-	-
92-Hdn	p	-	-	P=	-	-	-	-
4-Necrosis	s	1	-	-	-	-	-	-
230-Thrombus	s	-	-	2	-	-	-	2
13-Vacuoliz cyto	s	-	-	-	-	-	-	-
24-Inflammation, acute	s	-	-	-	-	-	-	-
54-Inflammation, chronic	s	1	1	-	-	1	-	1
46-Hyperplasia, biliary	s	1	1	-	1	1	2	2
47-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-
91-B-Adenoma, hepatocellular	s	-	-	-	-	-	-	-
205-M-Sarcoma, histiocytic	s	-	-	-	-	-	-	-
14-M-Leukemia, monuc	s	-	-	2	-	-	2	2
Spleen (5)	Status >	142	142	142	142	142	142	142
96-Fibrosis	Operator >	s	-	-	-	-	-	-
226-Hemorrhage	s	-	-	-	-	-	-	-
97-Necrosis	s	-	-	-	-	-	-	-
15-M-Leukemia, monuc	s	-	-	2	-	-	2	2
298-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6838H782	6838H784	6838H786	6838H788	6838H790	6838H792	6838H794
4 F 20 g/m3	Animal >	6838H781	6838H783	6838H785	6838H787	6838H789	6838H791	6838H793
Tissue/diagnosis	Death code >	FS	U2	FS	U1	FS	FS	FS
Kidneys (9)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
211-Atrophy	S	-	-	-	-	-	-	-
149-Cyst	S	-	-	-	-	-	-	-
209-Degen, hyaline droplet	S	-	-	-	-	-	-	-
210-Dilatation	S	-	-	-	-	-	-	-
228-Infarct	S	-	3	-	-	-	-	-
16-Nephropathy, chronic	S	3	2	3	3=	2	3	2
6-Pigment accum, tub epi	S	-	-	-	-	-	-	-
98-M-Leukemia, monuc	S	-	-	-	-	-	-	-
299-N-Sarcoma, histiocytic	S	-	-	-	-	-	-	-
Heart (5)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
100-Degen, myocyte	S	-	-	-	-	1	-	-
101-Fibrosis	S	-	-	-	-	-	-	-
175-Thrombus	S	-	-	-	-	-	-	-
36-Inflammation, focal, chronic	S	-	1	-	1	1	1	1
48-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Stomach (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	142	142	142	142	142	142	142
268-Ulcer	S	-	-	-	-	-	-	-
103-Inflammation, mixed	S	-	-	-	-	-	-	-
217-M-Carcinoma, metastatic	S	-	-	-	-	-	-	-
220-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Cecum (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
104-N-Leukemia, monuc	S	-	-	-	-	-	-	-
Urinary bladder (4)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
186-Hemorrhage	S	-	-	-	-	-	-	-
56-Inflammation, chronic	S	-	-	-	-	-	-	-
166-Hyperplasia, papillary	S	-	-	-	-	-	-	-
106-M-Leukemia, monuc	S	-	-	-	-	-	-	-
Duodenum (1)	Status >	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-
275-Inflammation, acute	S	-	-	-	-	-	-	-
Jejunum	Status >	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142

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Group Sex Dosage	6838H781	6838H782	6838H783	6838H784	6838H785	6838H786	6838H787	6838H788	6838H789	6838H790	6838H791	6838H792	6838H793	6838H794
4 F 20 g/m3	FS	FS	U2	FS	U2	U1	FS	FS	FS	FS	FS	U2	FS	FS
Tissue/diagnosis	Animal >	Animal >	Animal >	Death code >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >	Status >	Operator >
Ileum (1)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
181-N-Leukemia, monuc	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colon	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pancreas (2)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
212-Fibrosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
110-M-Leukemia, monuc	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rectum (1)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
276-Metaplasia, squamous	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adrenal glands (9)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
161-Cyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-
113-Degen, cytopl vacuol	1	-	-	2	-	-	-	-	1	-	-	-	1	-
170-Necrosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
118-Thrombus	-	-	-	-	-	-	-	-	-	-	-	-	-	-
117-Hyperplasia, cortical, focal	-	-	-	-	-	-	-	-	-	-	1	-	-	-
64-Hyperplasia, focal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
116-B-Pheochrom, bgn	-	-	-	-	-	-	-	-	-	-	-	-	-	-
216-M-Carcinoma, metastatic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
112-M-Leukemia, monuc	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uterus (11)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
277-Angiectasis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7-Dilatation	-	-	-	-	-	-	-	-	-	-	-	-	-	-
167-Intussusception	-	-	-	-	-	P=	-	-	-	-	-	-	-	-
162-Inflammation, mixed	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49-Inflammation, chronic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20-Hyperplasia, cystic endom	1	-	-	-	-	-	3	-	2	-	-	1	-	1
286-B-Adenoma, endometrial	-	-	-	-	-	-	-	-	-	1	-	-	-	-
9-B-Polyp, endometrial stromal	1=	-	-	-	-	-	-	-	-	1	=	-	-	-
213-M-Adenocarcinoma, endometr	-	-	-	-	-	-	-	-	-	-	-	-	-	-
279-M-Leiomyosar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
165-M-Leukemia, monuc	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mesenteric LN (4)	142	142	142	142	142	142	142	142	142	142	142	142	142	142
120-Hemorrhage	-	-	-	-	-	-	-	-	-	-	-	-	-	-
173-Inflammation, chronic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206-N-Sarcoma, histiocytic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32-N-Leukemia, monuc	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Group Sex Dosage	Animal >	6838H782	6838H783	6838H784	6838H785	6838H786	6838H787	6838H788	6838H789	6838H790	6838H791	6838H792	6838H794
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Tissue/diagnosis	Death code >	FS	FS	FS	FS	U1	FS	FS	FS	FS	FS	U2	FS
Ovaries (9)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	U	U	U	U	U	U	U	U	U	U	U	U
284-Congestion	s	-	-	-	-	-	-	-	-	-	-	-	-
154-Cyst, bursa	p	-	-	-	-	-	-	-	-	-	-	-	-
234-Cyst, epithelial	p	-	-	-	-	-	-	-	-	-	-	-	-
293-Cyst, follicular	p	-	-	-	-	-	-	-	-	-	-	-	-
291-Cyst, rete ovarii	s	-	-	-	-	-	-	-	-	-	-	-	-
25-Hemorrhage	s	-	-	-	-	-	-	-	-	-	-	-	-
290-Necrosis, mesenteric fat	s	-	-	-	-	-	-	-	-	-	-	-	-
207-N-Sarcoma, histiocytic	s	-	-	-	-	-	-	-	-	-	-	-	-
163-M-Leukemia, monoc	s	-	-	-	-	-	-	-	-	-	-	-	-
Sciatic nerve	Status >	U	U	U	U	U	U	U	U	U	U	U	U
Operator >	Operator >	142	142	142	142	142	142	142	142	142	142	142	142
Muscle, skeletal (1)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
208-N-Sarcoma, histiocytic	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
Mammary gland (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
159-Ectasia	s	-	-	-	-	-	-	-	-	-	-	-	-
190-Hyperplasia, lobular	s	-	-	-	-	-	1	-	-	-	-	-	-
156-B-Fibroadenoma	s	-	-	-	-	-	-	-	-	-	-	-	-
70-B-Fibroma	s	-	-	-	-	-	-	-	-	-	-	-	-
235-M-Adenocarcinoma	s	-	-	-	-	-	-	-	-	-	-	-	-
224-M-AdenoCA arising in fibroad	s	-	-	-	-	-	-	-	-	-	-	-	-
Skin (3)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
252-Cyst, epith inc	p	-	-	-	-	-	-	-	-	-	-	-	-
122-Fibrosis	s	-	-	-	-	-	-	-	-	-	-	-	-
253-Inflammation, mixed	s	-	-	-	-	-	-	-	-	-	-	-	-
Brain (6)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
26-Compression	s	-	-	-	-	-	-	1	-	-	-	-	-
192-Hemorrhage	s	-	-	-	-	-	2	-	-	-	-	-	-
155-Metaplasia, osseous, meninge	s	-	-	-	-	-	-	-	-	-	-	-	-
33-Necrosis	s	-	-	-	-	-	-	-	-	-	-	-	-
194-Inflammation, chronic	s	-	-	-	-	-	-	-	-	-	-	-	-
256-M-Astrocytoma, malignant	s	-	-	-	-	-	-	-	-	-	-	-	-
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142	142	142	142	142	142
Operator >	Operator >	-	-	-	-	-	-	-	-	-	-	-	-
127-Atrophy	s	-	-	-	-	-	-	-	-	-	-	-	-
129-Atrophy, retinal, unilat	s	-	-	-	-	-	-	-	-	-	-	-	-
130-Cataract	p	-	-	-	-	-	-	-	-	-	-	-	-
133-Metaplasia, osseous, sclera	s	-	-	-	-	-	-	-	-	-	-	-	-

Group Sex Dosage	Animal >	6838H782	6838H783	6838H784	6838H785	6838H786	6838H788	6838H790	6838H792	6838H794
4 F 20 g/m3	Animal >	6838H781	6838H783	6838H784	6838H785	6838H786	6838H788	6838H790	6838H792	6838H794
Tissue/diagnosis	Death code >	FS	FS	FS	U2	U1	FS	FS	FS	FS
Eyes/optic nerve (7)	Status >	142	142	142	142	142	142	142	142	142
58-Mineralization, corneal str s	Operator >	142	142	142	2=	142	142	142	142	142
126-Mineralization, scleral s	s	-	-	-	-	-	-	-	-	-
131-Neovascularization, corneal s	s	1	-	-	-	-	-	-	-	-
Bone, femur (1)	Status >	142	142	142	142	142	142	142	142	142
179-New bone, endosteal s	Operator >	-	-	-	-	-	-	-	-	-
Spinal cord (3)	Status >	142	142	142	142	142	142	142	142	142
27-Degen, white matter s	Operator >	-	-	-	-	-	-	-	1	-
197-Hemorrhage s	s	-	-	-	-	-	-	-	-	-
231-Necrosis, neuronal s	s	-	-	-	1	-	-	-	-	-
Nose/Turbinates 1 (5)	Status >	142	142	142	142	142	142	142	142	142
260-Degeneration,hyal-resp epith s	Operator >	142	142	142	142	142	142	142	142	142
134-Inflammation, mixed s	s	1	-	-	-	-	-	-	-	-
34-Inflammation-nasolac duct s	s	1	4	2	2	3	2	3	-	3
136-Inflammation-resp epith s	s	-	-	-	-	-	2	-	-	-
199-Hyperplasia-resp epith s	s	-	-	-	-	-	2	-	-	-
Nose/Turbinates 2 (6)	Status >	142	142	142	142	142	142	142	142	142
18-Degeneration,hyaline-olf epith s	Operator >	142	142	142	142	142	142	142	142	142
261-Degeneration,hyaline-olf epith s	s	2	-	1	-	-	1	-	-	-
176-Metaplasia, sec-olfact epith s	s	-	-	-	-	-	2	-	2	-
270-Metaplasia, squ-olfact epith s	s	-	-	-	-	-	-	-	-	-
138-Inflammation, mixed s	s	-	-	-	-	-	-	-	-	-
227-Hyperplasia-resp epith s	s	-	3	3	-	-	-	-	-	-
Nose/Turbinates 3 (4)	Status >	142	142	142	142	142	142	142	142	142
295-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142	142	142
19-Degeneration,hyaline-olf epith s	s	-	1	-	1	-	-	-	2	-
232-Degeneration-resp epith s	s	-	-	-	-	-	-	-	-	-
142-Inflammation, mixed s	s	-	-	-	-	-	-	-	-	-
Nose/Turbinates 4 (3)	Status >	142	142	142	142	142	142	142	142	142
285-Degeneration-olfact epith s	Operator >	142	142	142	142	142	142	142	142	142
164-Degeneration,hyaline-olf epith s	s	-	-	-	-	-	-	-	-	-
144-Inflammation, mixed s	s	-	-	-	-	-	-	-	-	-

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Lovelace Respiratory  
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Group Sex Dosage	Animal >	6838H782	6838H784	6838H785	6838H786	6838H788	6838H790	6838H792	6838H794
4 F 20 g/m3	Animal >	6838H781	6838H783	6838H785	6838H786	6838H788	6838H790	6838H792	6838H794
Tissue/diagnosis	Death code >	FS	U2	FS	U1	FS	FS	U2	FS
Cervix (3)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >								
168-B-Polyp, endometrial stromal									
289-M-Leiomyosarcoma									
269-N-Adenocarcinoma, endometr									
Clitoral gland (3)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >								
294-B-Adenoma									
61-M-Carcinoma, squamous cell									
271-N-Adenocarcinoma									
Lymph node other (3)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >								
60-Hemorrhage									
59-Infiltration, histiocytic s									
65-N-Leukemia, monuc									
Popliteal LN (1)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >								
66-N-Leukemia, monuc									
Iliac LN (1)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >								
67-N-Leukemia, monuc									
Pancreatic LN (1)	Status >	M	M	M	M	M	M	M	M
Operator >	Operator >								
68-N-Leukemia, monuc									
Mediastinal LN (7)	Status >	142	142	142	142	142	142	142	142
Operator >	Operator >								
29-Hemorrhage									
3-Infiltration, histiocytic s									
2-Pigmentation									
273-B-Thymoma									
219-M-Carcinoma, metastatic									
265-N-Sarcoma, histiocytic									
41-N-Leukemia, monuc									
Pituitary gland (10)	Status >	142	142	142	142	142	142	142	142
Operator >	Operator >								
160-Angiectasis									
37-Cyst		1							
38-Degen									
148-Hemorrhage			3						
203-Necrosis									
57-Hyperplasia, focal									
31-B-Adenoma, pars distalis									

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Lovelace Respiratory  
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Rat/F344/N

Group Sex Dosage	Animal >	6838H782	6838H783	6838H784	6838H785	6838H786	6838H787	6838H788	6838H789	6838H790	6838H791	6838H792	6838H793	6838H794
4 F 20 g/m3	Animal >	6838H781	6838H783	6838H784	6838H785	6838H786	6838H787	6838H788	6838H789	6838H790	6838H791	6838H792	6838H793	6838H794
Tissue/diagnosis	Death code >	FS	FS	FS	U2	U1	FS	FS	FS	FS	FS	U2	FS	FS
Pituitary gland (10)	Status >	142	142	142	142	142	142	142	142	142	142	142	142	142
274-B-Adenoma, pars intermedia	Operator >	-	-	-	-	-	-	-	-	-	-	-	-	-
288-M-Carcinoma	s	-	-	-	-	-	-	-	-	-	-	-	-	-
146-M-Leukemia, monoc	s	-	-	-	-	-	-	-	-	-	-	-	-	-
Tail (3)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
202-Inflammation, acute	Operator >													
152-Inflammation, mixed	s													
153-Hyperplasia/hyperkeratosis	s													
Bone, rib (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
157-M-Osteosarcoma	Operator >													
Mesentery (2)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
171-Splenic tissue, "accessory"	Operator >													
218-M-Carcinoma, metastatic	p													
Bone, vertebrae (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
221-N-Leukemia, monoc	Operator >													
Zymbal's gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
223-M-Carcinoma, squamous cell	Operator >													
Mediastinum (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
233-N-Leukemia, monoc	Operator >													
Bone, other (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
272-Fracture	Operator >													
Harderian gland (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
278-Pigment	Operator >													
Vagina (1)	Status >	M	M	M	M	M	M	M	M	M	M	M	M	M
287-M-Leiomyosarcoma	Operator >													

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Group	Sex	Dosage	Animal	6838H782	6838H784	6838H786	6838H788	6838H790	6838H792	6838H794
4	F	20 g/m3	Animal >	6838H781	6838H783	6838H785	6838H787	6838H789	6838H791	6838H793
			Death code >	FS	U2	FS	FS	FS	FS	FS
			Tissue/diagnosis			U1			U2	
			Tiss.not specifi	M	M	M	M	M	M	M
			Status >							
			Operator >							

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Group	Sex	Dosage	Animal >	6838H797	6838H799	6838H796	6838H798	6838H800
Tissue/diagnosis			Death code >	FS	U2	FS	FS	FS
<b>Lungs (12)</b>								
			Status >					
			Operator >	142	142	142	142	142
40-Alveolar histiocytosis			S	-	-	-	-	-
30-Congestion			S	-	-	-	-	-
71-Fibrosis, focal			S	-	-	-	-	-
182-Hemorrhage			S	-	-	-	-	-
177-Inflammation, acute			S	-	-	-	-	-
72-Inflammation, mixed			S	-	-	-	-	-
236-Inflammation, granulomatous			S	-	-	-	-	-
10-Hyperplasia, alv. epi. focal			S	-	-	-	-	-
214-N-Carcinoma, metastatic			S	-	-	-	-	-
11-N-Leukemia, monuc - cap invol			S	2=	-	-	-	2
74-N-Leukemia, monuc - inv invol			S	-	-	-	-	-
204-N-Sarcoma, histiocytic			S	-	-	-	-	-
<b>Trachea (4)</b>								
			Status >					
			Operator >	142	142	142	142	142
22-Inflammation, acute			S	-	-	-	-	-
75-Inflammation, mixed			S	-	-	-	-	-
76-Hyperplasia			S	-	-	-	-	-
238-N-Leukemia, monuc			S	-	-	-	-	-
<b>Bronchial (TBLN) (3)</b>								
			Status >					
			Operator >	142	142	142	142	142
21-Hemorrhage			S	-	-	2	-	-
297-Inflammation, mixed			S	-	-	-	-	-
62-N-Leukemia, monuc			S	-	-	-	-	-
<b>Thyroid glands (8)</b>								
			Status >					
			Operator >	142	142	142	142	142
79-Cyst, follicular			P	-	-	-	-	-
77-Hyperplasia, C-cell, focal			S	-	-	-	-	-
81-Hyperplasia, follicular cell			S	-	-	-	-	-
35-B-Adenoma, C-cell			S	-	-	-	-	-
78-B-Adenoma, follicular cell			S	-	-	-	-	-
174-M-Carcinoma, C-cell			S	-	-	-	-	-
80-M-Carcinoma, follicular cell			S	-	-	-	-	-
178-M-Leukemia, monuc			S	-	-	-	-	-
<b>Parathyroid (2)</b>								
			Status >					
			Operator >	142	142	142	142	142
241-Hyperplasia, focal			S	-	-	-	-	-
296-B-Adenoma			S	-	-	-	-	-
<b>Aorta (1)</b>								
			Status >					
			Operator >	142	142	142	142	142
83-N-Leukemia, monuc - inv invol			S	-	-	-	-	-

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Group Sex Dosage	Animal >	6838H797	6838H799						
4 F 20 g/m3	Animal >	6838H796	6838H798	6838H800					
Tissue/diagnosis	Death code >	FS	U2	FS	FS	FS	FS	FS	FS
Esophagus	Status >	U	U	U	U	U	U	U	U
	Operator >	142	142	142	142	142	142	142	142
Larynx (5)	Status >								
	Operator >	142	142	142	142	142	142	142	142
12-Metaplasia, squamous	s	-	-	-	-	-	-	-	-
1-Hyperplasia	s	1	2	-	-	-	-	2	-
23-Inflammation, acute	s	-	-	-	-	-	-	-	-
42-Inflammation, mixed	s	1	1	-	-	1	2	2	-
53-Inflammation, chronic	s	-	-	-	-	-	-	-	-
Salivary gland (1)	Status >								
	Operator >	142	142	142	142	142	142	142	142
43-M-Leukemia, monuc		-	-	-	-	-	-	-	-
Mandibular LN (2)	Status >								
	Operator >	142	142	142	142	142	142	142	142
89-Hemorrhage	s	-	-	-	-	-	-	-	-
44-N-Leukemia, monuc		-	-	-	-	-	-	-	-
Liver (15)	Status >								
	Operator >	142	142	142	142	142	142	142	142
45-Angiectasis	s	-	-	-	-	-	-	-	-
158-Congestion	s	-	-	-	-	-	-	-	-
90-Fatty Change	s	-	-	-	-	-	-	-	-
150-Foci cell alter, basophilic	s	-	-	-	-	-	-	-	-
92-Hdn	p	-	-	-	-	-	-	-	-
4-Necrosis	s	-	-	-	-	-	-	-	-
230-Thrombus	s	-	-	-	-	-	-	-	-
13-Vacuoliz cyto	s	-	-	-	-	-	-	2	-
24-Inflammation, acute	s	-	-	-	-	-	-	-	-
54-Inflammation, chronic	s	-	-	-	1	-	-	2	-
46-Hyperplasia, biliary	s	2	-	-	-	-	-	1	-
47-Hyperplasia, hepato, regen	s	-	-	-	-	-	-	-	-
91-B-Adenoma, hepatocellular		-	-	-	-	-	-	-	-
205-M-Sarcoma, histiocytic		-	-	-	-	-	-	-	-
14-M-Leukemia, monuc		-	2=	-	-	-	-	2=	-
Spleen (5)	Status >								
	Operator >	142	142	142	142	142	142	142	142
96-Fibrosis	s	-	-	-	-	-	-	-	-
226-Hemorrhage	s	-	-	-	-	-	-	-	-
97-Necrosis	s	-	-	-	-	-	-	-	-
15-M-Leukemia, monuc		-	2=	-	-	-	-	2=	-
298-N-Sarcoma, histiocytic		-	-	-	-	-	-	-	-

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Group	Sex	Dosage	Animal >	6838H797	6838H799	6838H800
4	F	20 g/m3	Animal >	6838H796	6838H798	6838H800
Tissue/diagnosis			Death code >	FS	U2	FS
Kidneys (9)						
			Status >	142	142	142
			Operator >	142	142	142
211-Atrophy			S	-	-	-
149-Cyst			S	-	-	-
209-Degen, hyaline droplet			S	-	-	-
210-Dilatation			S	-	-	-
228-Infarct			S	-	-	-
16-Nephropathy, chronic			S	2	1	2
6-Pigment accum, tub epi			S	-	-	-
98-M-Leukemia, monuc			S	-	-	-
299-N-Sarcoma, histiocytic			S	-	-	-
Heart (5)						
			Status >	142	142	142
			Operator >	142	142	142
100-Degen, myocyte			S	-	-	-
101-Fibrosis			S	-	-	-
175-Thrombus			S	-	-	-
36-Inflammation, focal, chronic			S	1	-	1
48-M-Leukemia, monuc			S	-	-	-
Stomach (4)						
			Status >	142	142	142
			Operator >	142	142	142
268-Ulcer			S	-	-	-
103-Inflammation, mixed			S	-	-	-
217-M-Carcinoma, metastatic			S	-	-	-
220-M-Leukemia, monuc			S	-	-	-
Cecum (1)						
			Status >	142	142	142
			Operator >	142	142	142
104-N-Leukemia, monuc			S	-	-	-
Urinary bladder (4)						
			Status >	142	142	142
			Operator >	142	142	142
186-Hemorrhage			S	-	-	-
56-Inflammation, chronic			S	-	-	-
166-Hyperplasia, papillary			S	-	-	-
106-M-Leukemia, monuc			S	-	-	-
Duodenum (1)						
			Status >	142	142	142
			Operator >	142	142	142
275-Inflammation, acute			S	-	-	-
Jejunum						
			Status >	U	U	U
			Operator >	142	142	142

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Group Sex Dosage	Animal >	6838H797	6838H799
4 F 20 g/m3	Animal >	6838H796	6838H800
Tissue/diagnosis	Death code >	FS U2	FS FS
Ileum (1)	Status >		
181-N-Leukemia, monuc	Operator >	142 142 142 142	142 142 142 142
Colon	Status >		
	Operator >	142 142 142 142	142 142 142 142
Pancreas (2)	Status >		
212-Fibrosis	Operator >	142 142 142 142	142 142 142 142
110-M-Leukemia, monuc	s	- - - -	- - - -
Rectum (1)	Status >		
276-Metaplasia, squamous	Operator >	142 142 142 142	142 142 142 142
Adrenal glands (9)	Status >		
	Operator >	142 142 142 142	142 142 142 142
161-Cyst	s	- - - -	- - - -
113-Degen, cytopl vacuol	s	1 - - -	1 - - -
170-Necrosis	s	- - - -	- - - -
118-Thrombus	s	- - - -	- - - -
117-Hyperplasia, cortical, focal	s	- - - -	- - - -
64-Hyperplasia, focal	p	- - - -	- - - -
116-B-Pheochrom, bgn		- - - -	- - - -
216-M-Carcinoma, metastatic		- - - -	- - - -
112-M-Leukemia, monuc		- - - -	- - - -
Uterus (11)	Status >		
	Operator >	142 142 142 142	142 142 142 142
277-Angiectasis	s	- - - -	- - - -
7-Dilatation	s	- - - -	- - - -
167-Intussusception	p	- - - -	- - - -
162-Inflammation, mixed	s	- - - -	- - - -
49-Inflammation, chronic	s	- - - -	- - - -
20-Hyperplasia, cystic endom	s	- - - -	- - - -
286-B-Adenoma, endometrial		- - - -	- - - -
9-B-Polyp, endometrial stromal		- - - -	- - - -
213-M-Adenocarcinoma, endometr		- - - -	- - - -
279-M-Leiomyosar		- - - -	- - - -
165-M-Leukemia, monuc		- - - -	- - - -
Mesenteric LN (4)	Status >		
	Operator >	142 142 142 142	142 142 142 142
120-Hemorrhage	s	- - - -	- - - -
173-Inflammation, chronic	s	- - - -	- - - -
206-N-Sarcoma, histiocytic		- - - -	- - - -
32-N-Leukemia, monuc		- - - -	- - - -

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Group	Sex	Dosage	Animal >	6838H797	6838H799	6838H796	6838H798	6838H800
4	F	20 g/m3	Animal >	U2	FS	FS	FS	FS
Tissue/diagnosis			Death code >					
Ovaries (9)			Status >					
Operator >			142	142	142	142	142	142
284-Congestion			s	-	-	-	-	-
154-Cyst, bursa			p	-	-	-	-	-
234-Cyst, epithelial			p	-	-	-	-	-
293-Cyst, follicular			p	-	-	-	-	-
291-Cyst, rete ovarii			s	-	-	-	-	-
25-Hemorrhage			s	-	-	-	-	-
290-Necrosis, mesenteric fat			s	-	-	-	-	-
207-N-Sarcoma, histiocytic				-	-	-	-	-
163-M-Leukemia, monoc				-	-	-	-	-
Sciatic nerve			Status >	U	U	U	U	U
Operator >			142	142	142	142	142	142
Muscle, skeletal (1)			Status >					
Operator >			142	142	142	142	142	142
208-N-Sarcoma, histiocytic				-	-	-	-	-
Mammary gland (6)			Status >	H				
Operator >			142	142	142	142	142	142
159-Ectasia			s	-	-	-	-	-
190-Hyperplasia, lobular			s	-	-	-	-	-
156-B-Fibroadenoma				-	1=	-	-	-
70-B-Fibroma				-	-	-	-	-
235-M-Adenocarcinoma				-	-	-	-	-
224-M-AdenoCA arising in fibroAD				-	-	-	-	-
Skin (3)			Status >					
Operator >			142	142	142	142	142	142
252-Cyst, epith inc			p	-	-	-	-	-
122-Fibrosis			s	-	-	-	-	-
253-Inflammation, mixed			s	-	-	-	-	-
Brain (6)			Status >					
Operator >			142	142	142	142	142	142
26-Compression			s	-	-	3=	-	2=
192-Hemorrhage			s	-	-	-	-	-
155-Metaplasia, osseous, meninge			s	-	-	-	-	-
33-Necrosis			s	-	-	-	-	-
194-Inflammation, chronic			s	-	-	-	-	-
256-M-Astrocytoma, malignant				-	-	-	-	-
Eyes/optic nerve (7)			Status >					
Operator >			142	142	142	142	142	142
127-Atrophy			s	-	-	-	-	-
129-Atrophy, retinal, unilat			s	-	-	-	-	-
130-Cataract			p	-	-	P=	-	-
133-Metaplasia, osseous, sclera			s	-	-	-	-	-

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Group Sex Dosage	Animal >	6838H797	6838H799
4 F 20 g/m3	Animal >	6838H796	6838H800
Tissue/diagnosis	Death code >	FS U2	FS FS
Eyes/optic nerve (7)	Status >		
58-Mineralization, corneal str	Operator >	142 142 142 142	142 142 142
126-Mineralization, scleral s	s	-	-
131-Neovascularization, corneal s	s	-	-
Bone, femur (1)	Status >		
179-New bone, endosteal	Operator >	142 142 142 142	142 142 142
Spinal cord (3)	Status >		
27-Degen, white matter	Operator >	142 142 142 142	142 142 142
197-Hemorrhage	s	-	-
231-Necrosis, neuronal	s	-	-
Nose/Turbinate 1 (5)	Status >		
260-Degeneration,hyal-resp epith s	Operator >	142 142 142 142	142 142 142
134-Inflammation, mixed s	s	-	-
34-Inflammation-nasolac duct s	s	3	-
136-Inflammation-resp epith s	s	-	-
199-Hyperplasia-resp epith s	s	-	-
Nose/Turbinate 2 (6)	Status >		
18-Degeneration,hyaline-olf epith s	Operator >	142 142 142 142	142 142 142
261-Degeneration,hyal-resp epith s	s	-	-
176-Metaplasia, sec-olfact epith s	s	2	-
270-Metaplasia, squ-olfact epith s	s	-	-
138-Inflammation, mixed s	s	-	-
227-Hyperplasia-resp epith s	s	-	-
Nose/Turbinate 3 (4)	Status >		
295-Degeneration-olfact epith s	Operator >	142 142 142 142	142 142 142
19-Degeneration,hyaline-olf epith s	s	-	-
232-Degeneration-resp epith s	s	2	-
142-Inflammation, mixed s	s	-	-
Nose/Turbinate 4 (3)	Status >		
285-Degeneration-olfact epith s	Operator >	142 142 142 142	142 142 142
164-Degeneration,hyaline-olf epith s	s	-	-
144-Inflammation, mixed s	s	-	-

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Lovelace Respiratory  
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Rat/F344/N

Group Sex Dosage	Animal >	6838H797	6838H799	6838H800
4 F 20 g/m3	Animal >	6838H796	6838H798	6838H800
Tissue/diagnosis	Death code >	FS U2	FS FS	FS FS
Cervix (3)	Status >	M	M	M
Operator >				
168-B-Polyp, endometrial stromal				
289-M-Leiomyosarcoma				
269-N-Adenocarcinoma, endometr				
Clitoral gland (3)	Status >	M	M	M
Operator >				
294-B-Adenoma				
61-M-Carcinoma, squamous cell				
271-N-Adenocarcinoma				
Lymph node other (3)	Status >	M	M	M
Operator >				
60-Hemorrhage				
59-Infiltration, histiocytic	s			
65-N-Leukemia, monuc	s			
Popliteal LN (1)	Status >	M	M	M
Operator >				
66-N-Leukemia, monuc				
Iliac LN (1)	Status >	M	M	M
Operator >				
67-N-Leukemia, monuc				
Pancreatic LN (1)	Status >	M	M	M
Operator >				
68-N-Leukemia, monuc				
Mediastinal LN (7)	Status >	142	142	142
Operator >				
29-Hemorrhage	s	-	-	-
3-Infiltration, histiocytic	s	-	-	-
2-Pigmentation	s	-	-	-
273-B-Thymoma				
219-M-Carcinoma, metastatic				
265-N-Sarcoma, histiocytic				
41-N-Leukemia, monuc				
Pituitary gland (10)	Status >	142	142	142
Operator >				
160-Angiectasis	s	-	-	-
37-Cyst	s	-	-	-
38-Degen	s	2	2	-
148-Hemorrhage	s	-	-	-
203-Necrosis	s	-	-	2
57-Hyperplasia, focal	s	-	-	-
31-B-Adenoma, pars distalis	s	-	-	1=

Raw Data Listing for Microscopic Tissue Evaluations  
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Lovelace Respiratory  
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Rat/F344/N

Group	Sex	Dosage	Animal >	6838H797	6838H799	6838H796	6838H798	6838H800
4	F	20 g/m3	Animal >	FS	U2	FS	FS	FS
Tissue/diagnosis			Death code >					
Pituitary gland (10)			Status >	142	142	142	142	142
274-B-Adenoma, pars intermedia			Operator >	-	-	-	-	-
288-M-Carcinoma				-	-	-	-	-
146-M-Leukemia, monuc				-	-	-	-	-
Tail (3)			Status >	M	M	M	M	M
202-Inflammation, acute			Operator >					
152-Inflammation, mixed			s					
153-Hyperplasia/hyperkeratosis			s					
Bone, rib (1)			Status >	M	M	M	M	M
157-M-Osteosarcoma			Operator >					
Mesentery (2)			Status >	M	M	M	M	M
171-Splenic tissue, "accessory"			Operator >					
218-M-Carcinoma, metastatic			p					
Bone, vertebrae (1)			Status >	M	M	M	M	M
221-N-Leukemia, monuc			Operator >					
Zymbal's gland (1)			Status >	M	M	M	M	M
223-M-Carcinoma, squamous cell			Operator >					
Mediastinum (1)			Status >	M	M	M	M	M
233-N-Leukemia, monuc			Operator >					
Bone, other (1)			Status >	M	M	M	M	M
272-Fracture			Operator >					
Harderian gland (1)			Status >	M	M	M	M	M
278-Pigment			Operator >					
Vagina (1)			Status >	M	M	M	M	M
287-M-Leiomyosarcoma			Operator >					

Raw Data Listing for Microscopic Tissue Evaluations  
Study Number: FY01013F

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Group	Sex	Dosage	Animal >	6838H797	6838H799
4	F	20 g/m3	Animal >	6838H798	6838H800
Tissue/diagnosis			Death code >	FS U2 FS	FS FS
Tiss.not specifi			Status >	M M M	M M M
			Operator >		

SYMBOLS, ABBREVIATIONS, AND CODES USED IN THE "MICROSCOPIC EVALUATION OF TISSUES"

\*\*\* DISTRIBUTION OF FINDINGS \*\*\*

" " NO PARENTHESIS = NOT SPECIFIED  
" M " M = FINDING MULTI-FOCAL  
" F " F = FINDING FOCAL  
" D " D = FINDING DIFFUSE

\*\*\* GRADES FOR DEFINING SEVERITY (DEGREE) OR AMOUNT OF CHANGE \*\*\*

" NON-NEOPLASMS " " NEOPLASMS "  
" 1 " = MINIMUM " 1 " = INCIDENTAL  
" 2 " = MILD " 2 " = CONTRIBUTORY  
" 3 " = MODERATE " 3 " = FATAL  
" 4 " = MARKED

\*\*\* OTHER SYMBOLS \*\*\*

" U " = ORGAN/TISSUE HISTOLOGICALLY NOT REMARKABLE  
" M " = MISCELLANEOUS TISSUE  
" - " = FINDING NOT PRESENT OR OBSERVED  
" P " = FINDINGS PRESENT OR CONFIRMED (GRADING INAPPROPRIATE)  
" \* " = TISSUE NOT AVAILABLE FOR MICROSCOPIC EXAMINATION  
" H " = SPECIAL HISTOLOGICAL COMMENTS ON TISSUE  
" A " = TISSUE NOT READABLE - AUTOLYTIC  
" a " = TISSUE READABLE - AUTOLYTIC  
" m " = ONE OF PAIRED ORGANS MISSING  
" I " = TISSUE INADEQUATE AND UNREADABLE

\*\*\* NEOPLASTIC FINDINGS \*\*\*

" B- " = PRIMARY, BENIGN NEOPLASM IN ORGAN/TISSUE  
" M- " = PRIMARY, MALIGNANT NEOPLASM IN ORGAN/TISSUE  
" X- " = MALIGNANT NEOPLASM - TISSUE OR ORIGIN UNKNOWN  
" N- " = METASTATIC NEOPLASM WITHIN ORGAN/TISSUE  
" I- " = LOCALLY INVASIVE NEOPLASM FROM NEARBY ORGAN  
" + " = PRESENCE OF A NEOPLASTIC FINDING IN ORGAN/TISSUE  
" +AA " = SECONDARY NEOPLASM FROM ORGAN/TISSUE INDICATED BY  
TWO LETTER ABBREVIATION (FOR EXAMPLE, LI=LIVER)  
" +N " = MORE THAN ONE NEOPLASM OF THE SAME TYPE IN THE  
SAME ORGAN, N EQUALS THE NUMBER OBSERVED  
" / " = NEOPLASM PRESENT AND RELATED TO ANIMAL DEATH

\*\*\* ANIMAL DEATH CODES \*\*\*

" Un " = USER DEFINED UNSCHEDULED DEATH CODES  
" I1 " = INTERIM SACRIFICE #1  
" I2 " = INTERIM SACRIFICE #2  
" I3 " = INTERIM SACRIFICE #3  
" I4 " = INTERIM SACRIFICE #4  
" I5 " = INTERIM SACRIFICE #5  
" FS " = FINAL SACRIFICE  
" R " = RE-CUT OF TISSUE REQUESTED

N-7 Individual Animal Report of Correlated Gross and Microscopic Diagnoses



Tissue	Gross observations / Comments	Correlated microscopic observations
Pituitary gland . . .	Discolored, 0-2 mm, Dark/ 1 Focus Round	Angiectasis, Mild.
Uterus . . . . .	Prolapse, 21-45 mm, +3	B-Polyp, endometrial stromal, Incidental.
Animal: 6832E456	Sex: Female	Dose level: 0 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 272.8
Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen . . . . .	Enlarged, 46-67 mm	M-Leukemia, mononuclear, Incidental.
Uterus . . . . .	Discolored, 0-2 mm, Pale, Gritty/ Multifocal Round	Examined; no correlation found
Pituitary gland . . .	Enlarged, Right, 11-15 mm, Soft/ Patchy	Hyperplasia, cystic endometrial, Marked.
Pituitary gland . . .	Discolored, 0-2 mm, Dark, +1/ Focus, round	Cyst, Minimal.
Animal: 6832E457	Sex: Female	Dose level: 0 g/m3
Day of death: 588 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 201.2
Tissue	Gross observations / Comments	Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Mottled, +2	M-Leukemia, mononuclear, Contributory.
Spleen . . . . .	Enlarged, 68-89 mm, +2	M-Leukemia, mononuclear, Contributory.
Pituitary gland . . .	Discolored, 0-2 mm, Red/ 1 Focus Round	No correlation entry made
Animal: 6832E458	Sex: Female	Dose level: 0 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 257.4
Tissue	Gross observations / Comments	Correlated microscopic observations
Pituitary gland . . .	Discolored, 0-2 mm, Dark Red, +2/ Focus Irregular	B-Adenoma, pars distalis, Incidental.
Animal: 6832E459	Sex: Female	Dose level: 0 g/m3
Day of death: 626 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 223.0
Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen . . . . .	Enlarged, 90-112 mm, Mottled, Friable, +3	M-Leukemia, mononuclear, Contributory.
Lungs . . . . .	Discolored, 0-2 mm, Dark Red, +2/ Multifocus Round	N-Leukemia, mononuclear - capillary involvement, Contributory.
Bronchial (TBLN) . .	Enlarged, 6-10 mm, +2/ Diffuse	N-Leukemia, mononuclear, Incidental.
Mammary gland . . .	Mass, Left Thoracic, 16-20 mm, White, Firm, +3/ Round	B-Fibroma, Incidental.

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Animal: 6832E459	Sex: Female	Group: 1	Dose level: 0 g/m3
Day of death: 626 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 223.0
Tissue	Gross observations / Comments (continued)		Correlated microscopic observations
Mediastinal LN . .	Enlarged, 6-10 mm, +1/ Oval Diffuse		N-Leukemia, mononuclear, Contributory.
Mesenteric LN . . .	Enlarged, 6-10 mm, +3/ Multiple Oval		N-Leukemia, mononuclear, Incidental.
Mandibular LN . . .	Enlarged, 6-10 mm, +2/ Oval		N-Leukemia, mononuclear, Incidental.
Animal: 6832E460	Sex: Female	Group: 1	Dose level: 0 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 277.6
Tissue	Gross observations / Comments		Correlated microscopic observations
Pituitary gland . .	Discolored, 3-5 mm, Dark, Soft/ Patchy Irregular		Hyperplasia, focal, Moderate.
Uterus . . . . .	Mass, Right, 21-45 mm, Dark, Firm/ Diffuse		B-Polyp, endometrial stromal, Incidental.
Animal: 6832E461	Sex: Female	Group: 1	Dose level: 0 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 300.6
Tissue	Gross observations / Comments		Correlated microscopic observations
Pituitary gland . .	Discolored, 0-2 mm, Black, +2/ Foci Round		Cyst, Moderate.
Animal: 6832E462	Sex: Female	Group: 1	Dose level: 0 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 304.3
Tissue	Gross observations / Comments		Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Mottled, +2		M-Leukemia, mononuclear, Contributory.
Pituitary gland . .	Discolored, 3-5 mm, Dark, +2/ Focus Irregular		Cyst, Moderate.
Thyroid glands . .	Enlarged, Left, 6-10 mm, Dark, +1/ Diffuse		M-Carcinoma, C-cell, Incidental.
Animal: 6832E463	Sex: Female	Group: 1	Dose level: 0 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 277.1
Tissue	Gross observations / Comments		Correlated microscopic observations
Spleen . . . . .	Enlarged, 46-67 mm, +1/ Diffuse		M-Leukemia, mononuclear, Contributory.
Pituitary gland . .	Discolored, 0-2 mm, Dark, +1/ Irregular		B-Adenoma, pars distalis, Incidental.

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 Rat/F344/N Animal: 6832E464 Sex: Female Status: Final phase sacrifice Group: 1 Dose level: 0 g/m3  
 Day of death: 735 Dosing phase Terminal body weight (g): 217.4 Page: 4

Tissue Gross observations / Comments Correlated microscopic observations  
 Liver . . . . . Discolored, Diffuse, Mottled, Friable, +3 Small, +3 M-Leukemia, mononuclear, Contributory.  
 Spleen . . . . . Enlarged, 46-67 mm, +2 Examined; no correlation found  
 . . . . . Enlarged, 46-67 mm, +2 M-Leukemia, mononuclear, Contributory.  
 Animal: 6832E466 Sex: Female Status: Sacrificed moribund Group: 1 Dose level: 0 g/m3  
 Day of death: 682 Dosing phase Terminal body weight (g): 237.0

Tissue Gross observations / Comments Correlated microscopic observations  
 Mediastinal LN . . . Enlarged, 3-5 mm, Red, Firm, +2 Hemorrhage, Mild.  
 Lungs . . . . . Discolored, 0-2 mm, Dark Red, Soft, +3/ Multifocal Hemorrhage, Mild.  
 Spleen . . . . . Enlarged, 68-89 mm, +2 M-Leukemia, mononuclear, Contributory.  
 . . . . . Adhesion, 11-15 mm, Cloudy, +2/ Irregular Fibrosis, Mild.  
 Animal: 6832E468 Sex: Female Status: Sacrificed moribund Group: 1 Dose level: 0 g/m3  
 Day of death: 680 Dosing phase Terminal body weight (g): 260.6

Tissue Gross observations / Comments Correlated microscopic observations  
 Eyes/optic nerve . Crust, Left, Diffuse, Pale/ Irregular No correlation entry made  
 Liver . . . . . Deformity, Diffuse, Mottled Examined; no correlation found  
 Urinary bladder . . Fluid, Diffuse, Cloudy, +2 No correlation entry made  
 Animal: 6832E469 Sex: Female Status: Sacrificed moribund Group: 1 Dose level: 0 g/m3  
 Day of death: 632 Dosing phase Terminal body weight (g): 201.9

Tissue Gross observations / Comments Correlated microscopic observations  
 Lungs . . . . . Discolored, 0-2 mm, Red/ Multifocal Round N-Leukemia, mononuclear - capillary involvement, Contributory.  
 Spleen . . . . . Enlarged, 46-67 mm, +2 M-Leukemia, mononuclear, Contributory.  
 Liver . . . . . Discolored, Diffuse, Mottled, +3 M-Leukemia, mononuclear, Contributory.

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 Rat/F344/N Animal: 6832E470 Sex: Female Status: Sacrificed moribund Group: 1 Dose level: 0 g/m3  
 Day of death: 540 Dosing phase Terminal body weight (g): 239.4 Page: 5

Tissue Gross observations / Comments Correlated microscopic observations

Liver . . . . . Discolored, Diffuse, Friable, +2/ Mottled Pale M-Leukemia, mononuclear, Contributory.

Spleen . . . . . Enlarged, 68-89 mm, +2 M-Leukemia, mononuclear, Contributory.

Mass, 16-20 mm, Firm/ Oval M-Leukemia, mononuclear, Contributory.

Bronchial (TBLN) . Enlarged, 6-10 mm/ Pale Yellow Oval N-Leukemia, mononuclear, Incidental.

Lungs . . . . . Discolored, 0-2 mm, Red/ Multifocal Round N-Leukemia, mononuclear - invasive involvement, Contributory.

Discolored, Diffuse, +1/ Mottled Brown N-Leukemia, mononuclear - invasive involvement, Contributory.

Animal: 6832E471 Sex: Female Status: Sacrificed moribund Group: 1 Dose level: 0 g/m3  
 Day of death: 673 Dosing phase Terminal body weight (g): 236.9

Tissue Gross observations / Comments Correlated microscopic observations

Pituitary gland . . Discolored, 3-5 mm, Mottled, +1/ Focus Irregular Angiectasis, Moderate.

Spleen . . . . . Enlarged, 68-89 mm, +2/ Diffuse M-Leukemia, mononuclear, Contributory.

Lungs . . . . . Discolored, 0-2 mm, Red, +2/ Multifocus Round N-Leukemia, mononuclear - capillary involvement, Contributory.

Animal: 6832E472 Sex: Female Status: Final phase sacrifice Group: 1 Dose level: 0 g/m3  
 Day of death: 738 Dosing phase Terminal body weight (g): 165.8

Tissue Gross observations / Comments Correlated microscopic observations

Kidneys . . . . . Cyst, Left, 16-20 mm, Clear, Watery/ 1 Round Cyst, Moderate.

Cyst, Right, 3-5 mm, Pale, +1/ Irregular, 1 Cyst, Moderate.

Animal: 6832E473 Sex: Female Status: Found Dead Group: 1 Dose level: 0 g/m3  
 Day of death: 657 Dosing phase Terminal body weight (g): 227.3

Tissue Gross observations / Comments Correlated microscopic observations

Mediastinal LN . . Discolored, Dark Red, +4 Hemorrhage, Moderate.

Lungs . . . . . Discolored, Diffuse, Mottled Red, +3 Congestion, Mild.

Ovaries . . . . . Discolored, Bilateral, Dark Red, +3 Hemorrhage, Mild.

Cervix . . . . . Thick, +3 Examined; no correlation found

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Animal: 6832E473      Sex: Female      Status: Found Dead      Group: 1      Dose level: 0 g/m3  
 Day of death: 657 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Brain . . . . . Deformity, 6-10 mm, Soft, +2/ Depressed      Compression, Moderate.  
 Pituitary gland . . . . . Mass, 6-10 mm, Dark Red, Soft, +2      B-Adenoma, pars distalis, Incidental.  
 Bronchial (TBLN) . . . . . Discolored, Dark Red, +3      Hemorrhage, Mild.  
 Animal: 6832E474      Sex: Female      Status: Sacrificed moribund      Group: 1      Dose level: 0 g/m3  
 Day of death: 632 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Brain . . . . . Discolored, Left, 0-2 mm, Red, +1/ Focus Round      Necrosis, Mild.  
 Kidneys . . . . . Discolored, Right, Patchy, Mottled, +1      Nephropathy, chronic, Minimal.  
 Liver . . . . . Discolored, Diffuse, Mottled, +2      M-Leukemia, mononuclear, Contributory.  
 Pituitary gland . . . . . Enlarged, 3-5 mm, Dark Red, +2/ Oval      B-Adenoma, pars distalis, Incidental.  
 Spleen . . . . . Enlarged, 46-67 mm, +1/ Diffuse      M-Leukemia, mononuclear, Contributory.  
 Lungs . . . . . Discolored, Left Lobe, 0-2 mm, Red, +1/ Multifocus Round      N-Leukemia, mononuclear - capillary involvement, Contributory.  
 Animal: 6832E475      Sex: Female      Status: Final phase sacrifice      Group: 1      Dose level: 0 g/m3  
 Day of death: 738 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Pituitary gland . . . . . Discolored, 3-5 mm, Dark, +1/ Focus Irregular      Hemorrhage, Minimal.  
 Animal: 6832E476      Sex: Female      Status: Sacrificed moribund      Group: 1      Dose level: 0 g/m3  
 Day of death: 723 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Lungs . . . . . Discolored, All Lobes, Diffuse, Mottled Red, +2      N-Leukemia, mononuclear - capillary involvement, Contributory.  
 Spleen . . . . . Enlarged, 68-89 mm, +4      M-Leukemia, mononuclear, Contributory.  
 Liver . . . . . Discolored, Friable, +2      M-Leukemia, mononuclear, Contributory.  
 Eyes/optic nerve . . . . . Discolored, Right, Opaque, +2      Cataract, Present.



Tissue Gross observations / Comments Correlated microscopic observations  
 Pituitary gland . . . Nodule, 3-5 mm, Mottled/ Oval Cyst, Mild.  
 Spleen . . . . . Enlarged, 68-89 mm/ Diffuse M-Leukemia, mononuclear, Incidental.  
 Thyroid glands . . . Enlarged, Left, 6-10 mm, Dark/ Oval B-Adenoma, C-cell, Incidental.  
 Lungs . . . . . Discolored, Diffuse, Mottled, +1 N-Leukemia, mononuclear - capillary involvement, Contributory.

Animal: 6832E483 Sex: Female Status: Final phase sacrifice Group: 1 Dose level: 0 g/m3  
 Day of death: 736 Dosing phase Terminal body weight (g): 271.8

Tissue Gross observations / Comments Correlated microscopic observations  
 Pituitary gland . . . Discolored, 0-2 mm, Dark Red, Soft, +1/ Single Angiectasis, Mild.  
 Spleen . . . . . Small, 21-45 mm, +1 Examined; no correlation found

Animal: 6832E484 Sex: Female Status: Sacrificed moribund Group: 1 Dose level: 0 g/m3  
 Day of death: 659 Dosing phase Terminal body weight (g): 212.8

Tissue Gross observations / Comments Correlated microscopic observations  
 Liver . . . . . Mass, Left Lobe, 11-15 mm/ Round Hyperplasia, hepatocellular, regenerative, Moderate.  
 Pituitary gland . . . Discolored, Single, Dark/ Round, focus B-Adenoma, pars distalis, Incidental.  
 Spleen . . . . . Enlarged, 21-45 mm/ Diffuse M-Leukemia, mononuclear, Contributory.

Animal: 6832E485 Sex: Female Status: Sacrificed moribund Group: 1 Dose level: 0 g/m3  
 Day of death: 483 Dosing phase Terminal body weight (g): 211.2

Tissue Gross observations / Comments Correlated microscopic observations  
 Liver . . . . . Discolored, Mottled, +1 M-Leukemia, mononuclear, Contributory.  
 Spleen . . . . . Enlarged, 46-67 mm M-Leukemia, mononuclear, Contributory.  
 Lungs . . . . . Discolored, 0-2 mm, Mottled, +1/ Diffuse N-Leukemia, mononuclear - capillary involvement, Contributory.  
 Bronchial (TBLN) . Enlarged, 6-10 mm N-Leukemia, mononuclear, Incidental.  
 Uterus . . . . . Enlarged, +2 B-Polyp, endometrial stromal, Incidental.  
 Mesenteric LN . . . Discolored, Diffuse, Mottled, +3 N-Leukemia, mononuclear, Incidental.  
 Enlarged, Multiple/ Oval N-Leukemia, mononuclear, Incidental.

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Animal: 6832E487      Sex: Female      Status: Sacrificed moribund      Group: 1      Dose level: 0 g/m3  
 Day of death: 589 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Adrenal glands . . . Discolored, Left, 3-5 mm, Yellow      B-Pheochromocytoma, benign, Incidental.

Spleen . . . . . Enlarged, 90-112 mm, Dark Red, +3/ Single      M-Leukemia, mononuclear, Contributory.

Mandibular LN . . . Enlarged, 6-10 mm, Pink/ Single Oval      N-Leukemia, mononuclear, Incidental.

Mediastinal LN . . . Enlarged, 6-10 mm, Pale/ Multiple Oval      N-Leukemia, mononuclear, Incidental.

Mesenteric LN . . . Enlarged, 16-20 mm, Pale/ Multiple Oval      N-Leukemia, mononuclear, Incidental.

Animal: 6832E488      Sex: Female      Status: Sacrificed moribund      Group: 1      Dose level: 0 g/m3  
 Day of death: 681 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Brain . . . . . Deformity, 6-10 mm      Compression, Marked.

Pituitary gland . . . Enlarged, 6-10 mm, Mottled Red, Firm, +3/ Diffuse Irregular      Angiectasis, Moderate.

Animal: 6832E489      Sex: Female      Status: Final phase sacrifice      Group: 1      Dose level: 0 g/m3  
 Day of death: 737 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Eyes/optic nerve . . . Crust, Right, Diffuse, Red, +1      No correlation entry made

Pituitary gland . . . Discolored, 0-2 mm, Dark, +2/ Single Round Tan      Hemorrhage, Moderate.

Uterus . . . . . Nodule, Right, 3-5 mm, Firm/ Single Round      Hyperplasia, cystic endometrial, Moderate.

Cervix . . . . . Enlarged, White, Firm, +2      Examined; no correlation found

Animal: 6832E490      Sex: Female      Status: Final phase sacrifice      Group: 1      Dose level: 0 g/m3  
 Day of death: 737 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Mediastinal LN . . . Enlarged, 11-15 mm, Pale, +3/ Multiple Oval      N-Leukemia, mononuclear, Incidental.

Mediastinum . . . . . Mass, 21-45 mm, Pale, +3/ Irregular      N-Leukemia, mononuclear, Contributory.

Lungs . . . . . Nodule, All Lobes, 3-5 mm, Pale, Firm, +3/ Multiple Round      N-Leukemia, mononuclear - invasive involvement, Contributory.

Spleen . . . . . Discolored, 6-10 mm, Pale, +1/ Focus Irregular      Fibrosis, Moderate.

Liver . . . . . Discolored, 3-5 mm, Pale, +3/ Mottled Foci Round      M-Leukemia, mononuclear, Contributory.

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Animal: 6832E491      Sex: Female      Status: Sacrificed moribund      Group: 1      Dose level: 0 g/m3  
 Day of death: 678 Dosing phase

Tissue	Gross observations / Comments	Correlated microscopic observations
Mandibular LN	. . . Enlarged, 16-20 mm, Dark, +3/ 2 Irregular	N-Leukemia, mononuclear, Incidental.
Mediastinal LN	. . . Enlarged, 6-10 mm, +1	N-Leukemia, mononuclear, Incidental.
Lymph node other	. . . Enlarged, Submandibular, 11-15 mm, +3/ Quant 4	N-Leukemia, mononuclear, Incidental.
	Enlarged, Renal, 6-10 mm, +2	N-Leukemia, mononuclear, Incidental.
	Enlarged, Cervical, 11-15 mm, +3	N-Leukemia, mononuclear, Incidental.
Lungs	. . . . . Discolored, 0-2 mm, Red/ Multifocal Round	Hemorrhage, Mild.
Bone, vertebrae	. . . Mass, Thoracic, 11-15 mm, Pale, Firm/ Single Irregular	N-Leukemia, mononuclear, Incidental.
Spleen	. . . . . Enlarged, 68-89 mm, +3	M-Leukemia, mononuclear, Contributory.
Urinary bladder	. . . Discolored, 0-2 mm, Red/ Multifocal Round	Hemorrhage, Mild.
Pancreatic LN	. . . Enlarged, 11-15 mm, +3	N-Leukemia, mononuclear, Incidental.
Mesenteric LN	. . . Enlarged, 11-15 mm, +3	N-Leukemia, mononuclear, Incidental.
Liver	. . . . . Discolored, Diffuse, Mottled, +2	M-Leukemia, mononuclear, Contributory.
Iliac LN	. . . . . Enlarged, 6-10 mm, +3	N-Leukemia, mononuclear, Incidental.

Animal: 6832E492      Sex: Female      Status: Sacrificed moribund      Group: 1      Dose level: 0 g/m3  
 Day of death: 512 Dosing phase

Tissue	Gross observations / Comments	Correlated microscopic observations
Zymbal's gland	. . . Mass, Right, 16-20 mm, Mottled, Firm/ Round	M-Carcinoma, squamous cell, Incidental.
Animal: 6832E493		
Day of death: 738 Dosing phase		
	Sex: Female      Status: Final phase sacrifice      Group: 1      Dose level: 0 g/m3	Terminal body weight (g): 230.8
Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen	. . . . . Enlarged, 68-89 mm, +4	M-Leukemia, mononuclear, Contributory.
Liver	. . . . . Discolored, Diffuse, Mottled, Friable, +2/ Irregular	M-Leukemia, mononuclear, Contributory.
Pituitary gland	. . . Enlarged, 3-5 mm, Dark, Soft/ Single Round	B-Adenoma, pars distalis, Incidental.
Mediastinal LN	. . . Enlarged, 6-10 mm, +1/ Multiple, Irregular	N-Leukemia, mononuclear, Incidental.
Bronchial (TBLN)	. . . Enlarged, 6-10 mm, +2/ Diffuse	N-Leukemia, mononuclear, Incidental.

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Animal: 6832E493	Sex: Female	Group: 1	Dose level: 0 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 230.8	
Tissue Gross observations / Comments			
Mesenteric LN . . .	Enlarged, 3-5 mm, Dark, +2/ Multiple, Irregular	Group: 1	Correlated microscopic observations
Animal: 6832E494	Sex: Female	Group: 1	N-Leukemia, mononuclear, Incidental.
Day of death: 637 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 276.5	
Tissue Gross observations / Comments			
Lungs . . . . .	Discolored, Right cranial, 0-2 mm, Brown, +1/ Focus Round		Correlated microscopic observations
			Hyperplasia, alveolar epithelial, focal, Mild.
Clitoral gland . . .	Mass, Left, 21-45 mm, Firm, +4/ Diffuse Irregular		M-Carcinoma, squamous cell, Contributory.
Lymph node other .	Enlarged, Renal, 3-5 mm, Dark, +1/ Diffuse Oval		Hemorrhage, Minimal.
Animal: 6832E495	Sex: Female	Group: 1	
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 301.6	
Tissue Gross observations / Comments			
Ovaries . . . . .	Cyst, Left, 6-10 mm, Yellow, Watery, +3/ Single Round		Correlated microscopic observations
			Cyst, epithelial, Present.
Uterus . . . . .	Cyst, Left, 3-5 mm, Clear, Watery, +2/ Single Round Left Upper		B-Polyp, endometrial stromal, Incidental.
Animal: 6832E496	Sex: Female	Group: 1	
Day of death: 637 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 200.1	
Tissue Gross observations / Comments			
Liver . . . . .	Discolored, Diffuse, Mottled, +1		Correlated microscopic observations
			M-Leukemia, mononuclear, Contributory.
Pituitary gland . .	Discolored, 3-5 mm, Red, +2/ Patchy Cyst, 3-5 mm, Clear		Cyst, Mild.
			Cyst, Mild.
Spleen . . . . .	Enlarged, 68-89 mm, +2		M-Leukemia, mononuclear, Incidental.
Bronchial (TBLN) .	Enlarged, 6-10 mm, +1		N-Leukemia, mononuclear, Incidental.
Mandibular LN . . .	Enlarged, 6-10 mm, +2		N-Leukemia, mononuclear, Incidental.
Mediastinal LN . .	Enlarged, 6-10 mm, +2		N-Leukemia, mononuclear, Incidental.
Mesenteric LN . . .	Enlarged, 11-15 mm, +3		N-Leukemia, mononuclear, Incidental.
Popliteal LN . . .	Enlarged, 3-5 mm, +1		N-Leukemia, mononuclear, Incidental.
Iliac LN . . . . .	Enlarged, 11-15 mm, +3		N-Leukemia, mononuclear, Incidental.

Tissue	Gross observations / Comments	Correlated microscopic observations
Pancreatic LN . . .	Enlarged, 6-10 mm, +2	N-Leukemia, mononuclear, Incidental.
Lymph node other .	Enlarged, Renal, 3-5 mm, +1	N-Leukemia, mononuclear, Incidental.
Animal: 6832E497	Sex: Female	Dose level: 0 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 269.1
Tissue	Gross observations / Comments	Correlated microscopic observations
Pituitary gland . .	Discolored, 0-2 mm, Mottled, Soft, +2/ Focus	Hemorrhage, Moderate.
Liver . . . . .	Mass, Left Lobe, 11-15 mm, Mottled, +2/ Single	B-Adenoma, hepatocellular, Incidental.
Animal: 6832E499	Sex: Female	Dose level: 0 g/m3
Day of death: 562 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 248.6
Tissue	Gross observations / Comments	Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Mottled, +1	M-Leukemia, mononuclear, Contributory.
Spleen . . . . .	Enlarged, 68-89 mm, +3	M-Leukemia, mononuclear, Contributory.
Mammary gland . .	Mass, Right, 46-67 mm, +4/ Mottled Dark Irregular	M-Adenocarcinoma arising in fibroadenoma, Contributory.
Animal: 6832E500	Sex: Female	Dose level: 0 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 303.6
Tissue	Gross observations / Comments	Correlated microscopic observations
Liver . . . . .	Discolored, Patchy, Dark, +2/ Irregular	Examined; no correlation found
Animal: 6834F551	Sex: Female	Dose level: 2 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 280.6
Tissue	Gross observations / Comments	Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Pale, Friable, +2/ Irregular	M-Leukemia, mononuclear, Incidental.
Skin . . . . .	Mass, Thoracic, 21-45 mm, Pale, Firm/ Rt Thoracic	(Mammary gland) B-Fibroma, Incidental.
Animal: 6834F552	Sex: Female	Dose level: 2 g/m3
Day of death: 574 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 229.7
Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen . . . . .	Enlarged, 46-67 mm, Dark Red, Firm, +3/ single	M-Leukemia, mononuclear, Contributory.

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Animal: 6834F552	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 574 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 229.7
Tissue Gross observations / Comments			
(continued)			
Adrenal glands . . . . .	Discolored, Bilateral, Diffuse, Dark Red, +4		Examined; no correlation found
Uterus . . . . .	Discolored, Right, 6-10 mm, Black, Soft, +3/ focus		B-Polyp, endometrial stromal, Incidental.
Liver . . . . .	Discolored, Diffuse, Pale, Oily, +4		M-Leukemia, mononuclear, Contributory.
Animal: 6834F553	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 278.5
Tissue Gross observations / Comments			
Correlated microscopic observations			
Liver . . . . .	Discolored, Diffuse, Mottled, Friable, +2		M-Leukemia, mononuclear, Incidental.
Animal: 6834F555	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 297.4
Tissue Gross observations / Comments			
Correlated microscopic observations			
Eyes/optic nerve . . . . .	Discolored, Right, Diffuse, Opaque, +4/ Mottled		Cataract, Present.
Animal: 6834F556	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 672 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 225.7
Tissue Gross observations / Comments			
Correlated microscopic observations			
Liver . . . . .	Discolored, Diffuse, Pale		M-Leukemia, mononuclear, Incidental.
Spleen . . . . .	Enlarged, 21-45 mm/ Diffuse		M-Leukemia, mononuclear, Incidental.
Uterus . . . . .	Mass, Right, 21-45 mm, Dark Red/ Irregular		B-Polyp, endometrial stromal, Contributory.
Animal: 6834F557	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 264.6
Tissue Gross observations / Comments			
Correlated microscopic observations			
Thyroid glands . . . . .	Nodule, Left, 0-2 mm, Firm		B-Adenoma, C-cell, Incidental.
Uterus . . . . .	Enlarged, Bilateral, +1		Dilatation, Mild.
Animal: 6834F558	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 263.2
Tissue Gross observations / Comments			
Correlated microscopic observations			
Pituitary gland . . . . .	Discolored, 3-5 mm, Dark, +1/ Focus Irregular		B-Adenoma, pars distalis, Incidental.
Liver . . . . .	Discolored, Diffuse, Mottled, +2		Examined; no correlation found

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Animal: 6834F559	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 245.3	
Tissue Gross observations / Comments Correlated microscopic observations			
Tail . . . . .	Amputation, Tip, +2	No correlation entry made	
Animal: 6834F561	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 277.0	
Tissue Gross observations / Comments Correlated microscopic observations			
Pituitary gland . . . . .	Nodule, 3-5 mm, Soft	B-Adenoma, pars distalis, Incidental.	
Uterus . . . . .	Mass, Right, 6-10 mm, Dark, Soft/ 2 Round	B-Adenoma, endometrial, Incidental.	
Vagina . . . . .	Mass, 11-15 mm, Dark, Firm/ Diffuse	M-Leiomyosarcoma, Incidental.	
Animal: 6834F562	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 488 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 238.4	
Tissue Gross observations / Comments Correlated microscopic observations			
Liver . . . . .	Discolored, All Lobes, Diffuse, Pale, +2	Examined; no correlation found	
Bronchial (TBLN) . . . . .	Discolored, Diffuse, +4/ Dark Red	Hemorrhage, Moderate.	
Uterus . . . . .	Enlarged, Right, Diffuse, Dark Red, +3	M-Leiomyosarcoma, Contributory.	
	Discolored, Right, Diffuse, Dark Red, +3	M-Leiomyosarcoma, Contributory.	
	Mass, Right, 46-67 mm, Mottled Red, +4/ single	M-Leiomyosarcoma, Contributory.	
Ovaries . . . . .	Enlarged, Left, 6-10 mm, Red	Examined; no correlation found	
Salivary gland . . . . .	Discolored, Bilateral, Diffuse, Brown	Examined; no correlation found	
Animal: 6834F563	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 288.7	
Tissue Gross observations / Comments Correlated microscopic observations			
Brain . . . . .	Deformity, 3-5 mm/ Depressed	Compression, Mild.	
Pituitary gland . . . . .	Cyst, 3-5 mm, Clear, Watery	Cyst, Marked.	
Uterus . . . . .	Mass, Right, 6-10 mm, Dark, Firm/ Diffuse	B-Polyp, endometrial stromal, Incidental.	
Mammary gland . . . . .	Mass, Thoracic, 21-45 mm, Firm/ Right Thoracic	B-Fibroadenoma, Incidental.	

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 Rat/F344/N Animal: 6834F564 Sex: Female Status: Final phase sacrifice Group: 2 Dose level: 2 g/m3  
 Day of death: 738 Dosing phase Terminal body weight (g): 221.5

Tissue Gross observations / Comments Correlated microscopic observations  
 Brain . . . . . Deformity, 6-10 mm/ Depressed Compression, Mild.  
 Discolored, 6-10 mm, Dark/ Patchy Irregular (Pituitary gland) M-Carcinoma, Incidental.  
 Pituitary gland . . Mass, 6-10 mm, Dark, Firm/ Diffuse M-Carcinoma, Incidental.  
 Animal: 6834F565 Sex: Female Group: 2 Dose level: 2 g/m3  
 Day of death: 640 Dosing phase Status: Sacrificed moribund Terminal body weight (g): 268.4

Tissue Gross observations / Comments Correlated microscopic observations  
 Brain . . . . . Deformity, 6-10 mm, +3 Compression, Moderate.  
 Uterus . . . . . Discolored, Right, 0-2 mm, Dark, Soft, +1/ Focus Oval B-Polyp, endometrial stromal, Incidental.  
 Pituitary gland . . Mass, 6-10 mm, Mottled, Firm, +3/ Diffuse Oval B-Adenoma, pars distalis, Incidental.  
 Mammary gland . . . Mass, Thoracic, 21-45 mm, +3 M-Adenocarcinoma, Incidental.  
 Mass, Lumbar, 21-45 mm, +4 M-Adenocarcinoma, Incidental.  
 Animal: 6834F566 Sex: Female Group: 2 Dose level: 2 g/m3  
 Day of death: 508 Dosing phase Status: Sacrificed moribund Terminal body weight (g): 226.8

Tissue Gross observations / Comments Correlated microscopic observations  
 Uterus . . . . . Mass, Left, 21-45 mm, Mottled Dark, Firm/ Irregular B-Polyp, endometrial stromal, Incidental.  
 Lungs . . . . . Discolored, Diffuse, Pale White, +2 Examined; no correlation found  
 Liver . . . . . Hernia, Medial, 6-10 mm Hepatodiaphragmatic nodule, Present.  
 Discolored, Diffuse, +2/ Pale tan Necrosis, Moderate.  
 Animal: 6834F567 Sex: Female Group: 2 Dose level: 2 g/m3  
 Day of death: 710 Dosing phase Status: Sacrificed moribund Terminal body weight (g): 282.2

Tissue Gross observations / Comments Correlated microscopic observations  
 Mammary gland . . . Mass, Right, 46-67 mm, Mottled, Firm, +3/ Round B-Fibroadenoma, Incidental.  
 Spleen . . . . . Enlarged, 46-67 mm, Dark Red, +2 M-Leukemia, mononuclear, Incidental.

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Animal: 6834F568 Sex: Female Status: Sacrificed moribund Group: 2 Dose level: 2 g/m3  
 Day of death: 589 Dosing phase Terminal body weight (g): 203.6

Tissue	Gross observations / Comments	Correlated microscopic observations
Mandibular LN . . .	Enlarged, 6-10 mm/ Diffuse	N-Leukemia, mononuclear, Incidental.
Mediastinal LN . . .	Enlarged, 6-10 mm/ Diffuse	N-Leukemia, mononuclear, Incidental.
Lungs . . . . .	Discolored, 0-2 mm, Red, +1/ Focus Round	N-Leukemia, mononuclear - capillary involvement, Incidental.
Bronchial (TBLN) .	Enlarged, 3-5 mm/ Diffuse	N-Leukemia, mononuclear, Incidental.
Spleen . . . . .	Enlarged, +3	M-Leukemia, mononuclear, Contributory.
Mesenteric LN . . .	Mass, 21-45 mm, Mottled, Firm/ Diffuse Irregular	M-Leukemia, mononuclear, Contributory.
Lymph node other .	Enlarged, 6-10 mm, +3	N-Leukemia, mononuclear, Incidental.
Lymph node other .	Enlarged, Submandibular, 6-10 mm	N-Leukemia, mononuclear, Incidental.
Ovaries . . . . .	Enlarged, Renal, 11-15 mm	N-Leukemia, mononuclear, Incidental.
Popliteal LN . . .	Enlarged, Bilateral, 11-15 mm, +3	M-Leukemia, mononuclear, Contributory.
Iliac LN . . . . .	Enlarged, 3-5 mm	N-Leukemia, mononuclear, Incidental.
Iliac LN . . . . .	Enlarged, 6-10 mm	N-Leukemia, mononuclear, Incidental.

Animal: 6834F569 Sex: Female Status: Final phase sacrifice Group: 2 Dose level: 2 g/m3  
 Day of death: 735 Dosing phase Terminal body weight (g): 312.4

Tissue	Gross observations / Comments	Correlated microscopic observations
Brain . . . . .	Deformity, 3-5 mm, +1/ Irregular	Compression, Mild.
Pituitary gland . .	Mass, 6-10 mm, Dark, Firm, +2/ Diffuse Irregular	B-Adenoma, pars distalis, Incidental.
Mandibular LN . . .	Enlarged, 3-5 mm, +1/ Multiple	Examined; no correlation found
Cervix . . . . .	Enlarged, 6-10 mm, Firm, +2/ Diffuse Irregular	Examined; no correlation found
Animal: 6834F570 Sex: Female Status: Final phase sacrifice Group: 2 Dose level: 2 g/m3 Day of death: 736 Dosing phase Terminal body weight (g): 268.6		
Tissue	Gross observations / Comments	Correlated microscopic observations
Thyroid glands . .	Enlarged, Left, 3-5 mm, +2	B-Adenoma, C-cell, Incidental.
Cervix . . . . .	Enlarged, 11-15 mm, +3	M-Leiomyosarcoma, Incidental.

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 Rat/F344/N Animal: 6834F571 Sex: Female Status: Sacrificed moribund Group: 2 Dose level: 2 g/m3  
 Day of death: 723 Dosing phase Terminal body weight (g): 211.9 Page: 17

Tissue Gross observations / Comments Correlated microscopic observations  
 Mammary gland . . . Mass, Right, 11-15 mm, Pale, +2/ Rt Abd Single Oval B-Fibroma, Incidental.  
 Spleen . . . . . Enlarged, 46-67 mm, Dark Red, +3 M-Leukemia, mononuclear, Contributory.  
 Liver . . . . . Discolored, Diffuse, Pale, +3 M-Leukemia, mononuclear, Contributory.  
 Animal: 6834F572 Sex: Female Status: Sacrificed moribund Group: 2 Dose level: 2 g/m3  
 Day of death: 688 Dosing phase Terminal body weight (g): 256.4

Tissue Gross observations / Comments Correlated microscopic observations  
 Eyes/optic nerve . Discolored, Right, Diffuse, Cloudy, +3 Atrophy, Marked.  
 Cataract, Present.  
 Mediastinal LN . . Enlarged, 6-10 mm, +3 N-Leukemia, mononuclear, Incidental.  
 Spleen . . . . . Enlarged, 68-89 mm, +3 M-Leukemia, mononuclear, Contributory.  
 Necrosis, Marked.  
 Pancreatic LN . . . Enlarged, 6-10 mm, +2 N-Leukemia, mononuclear, Incidental.  
 Animal: 6834F573 Sex: Female Status: Final phase sacrifice Group: 2 Dose level: 2 g/m3  
 Day of death: 738 Dosing phase Terminal body weight (g): 258.5

Tissue Gross observations / Comments Correlated microscopic observations  
 Pituitary gland . . Discolored, 3-5 mm, Dark/ Single Oval B-Adenoma, pars distalis, Incidental.  
 Uterus . . . . . Mass, Left, 6-10 mm, Firm/ Single Oval B-Polyp, endometrial stromal, Incidental.  
 Animal: 6834F574 Sex: Female Status: Final phase sacrifice Group: 2 Dose level: 2 g/m3  
 Day of death: 734 Dosing phase Terminal body weight (g): 265.2

Tissue Gross observations / Comments Correlated microscopic observations  
 Cervix . . . . . Enlarged, 6-10 mm, +2 Examined; no correlation found  
 Animal: 6834F575 Sex: Female Status: Final phase sacrifice Group: 2 Dose level: 2 g/m3  
 Day of death: 735 Dosing phase Terminal body weight (g): 309.2

Tissue Gross observations / Comments Correlated microscopic observations  
 Cervix . . . . . Enlarged, 6-10 mm, +2 Examined; no correlation found  
 Spleen . . . . . Small, 21-45 mm, Mottled Red, +2 Examined; no correlation found



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Animal: 6834F578	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 664 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 218.3
Tissue Gross observations / Comments Correlated microscopic observations			
Liver . . . . .	Hernia, Median Lobe, Firm		Hepatodiaphragmatic nodule, Present.
Animal: 6834F579	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 299.6
Tissue Gross observations / Comments Correlated microscopic observations			
Brain . . . . .	Deformity, 3-5 mm/ Depressed		Compression, Minimal.
Liver . . . . .	Discolored, Diffuse, Mottled, Friable		M-Leukemia, mononuclear, Incidental.
Spleen . . . . .	Enlarged, 46-67 mm		M-Leukemia, mononuclear, Incidental.
Pituitary gland . . . . .	Enlarged, 6-10 mm, Dark, Soft/ Patchy Irregular		B-Adenoma, pars distalis, Incidental.
Animal: 6834F580	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 296.3
Tissue Gross observations / Comments Correlated microscopic observations			
Pituitary gland . . . . .	Discolored, 0-2 mm, Dark/ 1 Focus Round		B-Adenoma, pars distalis, Incidental.
Animal: 6834F581	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 729 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 207.5
Tissue Gross observations / Comments Correlated microscopic observations			
Liver . . . . .	Discolored, Diffuse, Brown, +4/ Red		M-Leukemia, mononuclear, Contributory.
Spleen . . . . .	Enlarged, 68-89 mm, Dark Red, +3		M-Leukemia, mononuclear, Contributory.
Animal: 6834F582	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 636 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 248.6
Tissue Gross observations / Comments Correlated microscopic observations			
Pituitary gland . . . . .	Discolored, 0-2 mm, Dark, +1/ Focus Round		Examined; no correlation found
Uterus . . . . .	Mass, Right, 46-67 mm, Mottled, Firm, +4/ Diffuse Irregular		B-Polyp, endometrial stromal, Contributory.
Animal: 6834F584	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 258.5
Tissue Gross observations / Comments Correlated microscopic observations			
Brain . . . . .	Deformity, 6-10 mm, +4/ Round		Compression, Moderate.

Tissue	Gross observations / Comments (continued)	Correlated microscopic observations
Brain . . . . .	Discolored, Patchy, Dark Red, +2/ Irregular	Hemorrhage, Mild.
Liver . . . . .	Mass, 6-10 mm, Pale, Firm, +4/ Multiple Irregular Thick, Red, +4	Hyperplasia, hepatocellular, regenerative, Mild. M-Leukemia, mononuclear, Incidental.
Pituitary gland . . . . .	Mass, 6-10 mm, Purple, +4/ Round	B-Adenoma, pars distalis, Incidental.
Animal: 6834F585	Sex: Female	Dose level: 2 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 234.6
Tissue	Gross observations / Comments	Correlated microscopic observations
Eyes/optic nerve . . . . .	Discolored, Left, Diffuse, Opaque, +2	Cataract, Present.
Pituitary gland . . . . .	Discolored, 3-5 mm, +1/ Multifocus Irregular	Hyperplasia, focal, Moderate.
Animal: 6834F586	Sex: Female	Dose level: 2 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 286.9
Tissue	Gross observations / Comments	Correlated microscopic observations
Lungs . . . . .	Discolored, Diffuse, Mottled Red, +2	Examined; no correlation found
Animal: 6834F589	Sex: Female	Dose level: 2 g/m3
Day of death: 680 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 267.9
Tissue	Gross observations / Comments	Correlated microscopic observations
Liver . . . . .	Discolored, 0-2 mm, White, +2/ Single Focus	Necrosis, Mild.
Spleen . . . . .	Discolored, Diffuse, Pale, Friable, +3	M-Leukemia, mononuclear, Contributory.
Uterus . . . . .	Enlarged, Dark Red, +2	M-Leukemia, mononuclear, Contributory.
Animal: 6834F590	Sex: Female	Dose level: 2 g/m3
Day of death: 350 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 234.0
Tissue	Gross observations / Comments	Correlated microscopic observations
Uterus . . . . .	Prolapse, Red, +3	Intussusception, Present.

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Animal: 6834F591	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 256.1	
Tissue Gross observations / Comments			
Liver . . . . .	Discolored, Diffuse, Mottled Red, +1/ Irregular	M-Leukemia, mononuclear, Incidental.	Correlated microscopic observations
Animal: 6834F592	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 274.7	
Tissue Gross observations / Comments			
Lungs . . . . .	Nodule, Left Lobe, 3-5 mm, Pale, Firm/ Single Round	Fibrosis, focal, Mild.	Correlated microscopic observations
Animal: 6834F593	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 725 Dosing phase	Status: Found Dead	Terminal body weight (g): 257.4	
Tissue Gross observations / Comments			
Pituitary gland . . . . .	Enlarged, 6-10 mm, Purple, Soft, +4/ Round	B-Adenoma, pars distalis, Incidental.	Correlated microscopic observations
Brain . . . . .	Deformity, 6-10 mm, Pale, Soft, +4	Compression, Mild.	
Animal: 6834F594	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 589 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 299.0	
Tissue Gross observations / Comments			
Clitoral gland . . . . .	Mass, 46-67 mm, Soft/ Irregular	(Mammary gland) B-Fibroadenoma, Contributory.	Correlated microscopic observations
Uterus . . . . .	Nodule, Right, 3-5 mm, Dark, Firm/ Round	B-Polyp, endometrial stromal, Incidental.	
Pituitary gland . . . . .	Nodule, 0-2 mm, Dark/ Focus Round	B-Adenoma, pars distalis, Incidental.	
Animal: 6834F595	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 488 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 214.2	
Tissue Gross observations / Comments			
Uterus . . . . .	Dilatation, Right, 16-20 mm, Red	B-Polyp, endometrial stromal, Incidental.	Correlated microscopic observations
Cervix . . . . .	Thick, 11-15 mm, Pale	Examined; no correlation found	
Animal: 6834F596	Sex: Female	Group: 2	Dose level: 2 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 262.2	
Tissue Gross observations / Comments			
Mandibular LN . . . . .	Enlarged, 3-5 mm, +1/ Multiple Irregular	N-Leukemia, mononuclear, Incidental.	Correlated microscopic observations

Tissue Gross observations / Comments Correlated microscopic observations  
 Ovaries . . . . . Mass, Right, 6-10 mm, Mottled, Firm, +2/ Diffuse (continued) Necrosis, mesenteric fat, Mild.  
 Irregular  
 Pituitary gland . . . . . Discolored, 0-2 mm, Dark, +1/ Focus Angiectasis, Moderate.  
 Liver . . . . . Hernia, Median Lobe, 6-10 mm, Firm, +2/ Irregular Hepatodiaphragmatic nodule, Present.  
 Animal: 6834F599 Sex: Female Group: 2 Dose level: 2 g/m3  
 Day of death: 561 Dosing phase Status: Sacrificed moribund Terminal body weight (g): 200.0

Tissue Gross observations / Comments Correlated microscopic observations  
 Adrenal glands . . . . . Discolored, Diffuse, Dark Red, +4 M-Leukemia, mononuclear, Incidental.  
 Kidneys . . . . . Discolored, Diffuse, Black, +4 Pigment accumulation, tubular epithelium, Moderate.  
 Liver . . . . . Discolored, All Lobes, Diffuse, Pale, +2 M-Leukemia, mononuclear, Contributory.  
 Spleen . . . . . Enlarged, 46-67 mm, Dark Red, Firm, +3 M-Leukemia, mononuclear, Contributory.  
 Lungs . . . . . Discolored, All Lobes, Diffuse, +2/ Pale Yellow N-Leukemia, mononuclear - capillary involvement, Contributory.  
 Animal: 6834F600 Sex: Female Group: 2 Dose level: 2 g/m3  
 Day of death: 737 Dosing phase Status: Final phase sacrifice Terminal body weight (g): 280.6

Tissue Gross observations / Comments Correlated microscopic observations  
 Pituitary gland . . . . . Discolored, 0-2 mm, Red, +1/ Irregular B-Adenoma, pars distalis, Incidental.  
 Animal: 6836G651 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 734 Dosing phase Status: Final phase sacrifice Terminal body weight (g): 262.8  
 Tissue Gross observations / Comments Correlated microscopic observations  
 Uterus . . . . . Mass, Right, 16-20 mm, Soft/ Single Oval B-Polyp, endometrial stromal, Incidental.  
 Animal: 6836G652 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 734 Dosing phase Status: Final phase sacrifice Terminal body weight (g): 277.7

Tissue Gross observations / Comments Correlated microscopic observations  
 Pituitary gland . . . . . Discolored, 0-2 mm, Dark Red, Soft/ Single Round Cyst, Moderate.

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Animal: 6836G653      Sex: Female      Status: Sacrificed moribund      Group: 3      Dose level: 10 g/m3  
Day of death: 489 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Pituitary gland . . . Discolored, 0-2 mm, Dark Red/ Focus      Cyst, Mild.

Thyroid glands . . . Mass, Right, 11-15 mm, Mottled, Firm/ Oval      M-Carcinoma, follicular cell, Contributory.

Esophagus . . . . . Discolored, 6-10 mm, Dark Red/ Oval      Examined; no correlation found

Liver . . . . . Nodule, Median Lobe, 3-5 mm, Pale/ Single Round      Examined; no correlation found

Lymph node other . . . Enlarged, Cervical, 3-5 mm, Dark Red, Firm      Examined; no correlation found

Animal: 6836G654      Sex: Female      Status: Final phase sacrifice      Group: 3      Dose level: 10 g/m3  
Day of death: 738 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Eyes/optic nerve . . . Crust, Right, Diffuse, Red, +1      No correlation entry made

Brain . . . . . Deformity, 6-10 mm/ Single Depression      Compression, Marked.

Pituitary gland . . . Enlarged, 6-10 mm, Dark, Soft/ Single Round      B-Adenoma, pars distalis, Incidental.

Animal: 6836G655      Sex: Female      Status: Final phase sacrifice      Group: 3      Dose level: 10 g/m3  
Day of death: 737 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Eyes/optic nerve . . . Crust, Left, Diffuse, Red, +1      No correlation entry made

Brain . . . . . Deformity, 3-5 mm/ Single Depressed      Compression, Mild.

Liver . . . . . Discolored, Diffuse, Mottled Red, Friable, +2/  
Irregular      M-Leukemia, mononuclear, Incidental.

Pituitary gland . . . Enlarged, 6-10 mm, Dark, Soft/ Round      B-Adenoma, pars distalis, Incidental.

Animal: 6836G657      Sex: Female      Status: Final phase sacrifice      Group: 3      Dose level: 10 g/m3  
Day of death: 738 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Pituitary gland . . . Discolored, 0-2 mm, Dark/ Focus Round      B-Adenoma, pars distalis, Incidental.

Ovaries . . . . . Discolored, Left, 0-2 mm, Dark/ Patchy Irregular      Cyst, rete ovarii, Mild.

Cervix . . . . . Enlarged, +1      Examined; no correlation found

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 Day of death: 730 Dosing phase Terminal body weight (g): 232.0 Page: 24

Tissue Gross observations / Comments Correlated microscopic observations  
 Liver . . . . . Discolored, Diffuse, Mottled, Friable, +2/ Pale M-Leukemia, mononuclear, Contributory.  
 Spleen . . . . . Enlarged, 90-112 mm, +4 M-Leukemia, mononuclear, Contributory.  
 Uterus . . . . . Nodule, Bilateral, 3-5 mm, Dark, Firm, +1/ 2 Oval Angiectasis, Mild.  
 Animal: 6836G660 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 734 Dosing phase Status: Final phase sacrifice Terminal body weight (g): 295.8

Tissue Gross observations / Comments Correlated microscopic observations  
 Mediastinal LN . . . . . Enlarged, 3-5 mm, Pale/ Diffuse Round Infiltration, histiocytic.  
 Lungs . . . . . Discolored, Patchy, Dark, +2/ Irregular N-Sarcoma, histiocytic, Incidental.  
 Spleen . . . . . Enlarged, 46-67 mm, +1 N-Sarcoma, histiocytic, Incidental.  
 Uterus . . . . . Discolored, 3-5 mm, Pale/ Focus Round N-Sarcoma, histiocytic, Incidental.  
 Liver . . . . . Discolored, Left, 6-10 mm, Dark/ Patchy B-Polyp, endometrial stromal, Incidental.  
 Kidneys . . . . . Discolored, Diffuse, Mottled, +4 M-Sarcoma. histiocytic, Incidental.  
 Nodule, 3-5 mm, Pale, Firm/ Multiple Irregular M-Sarcoma. histiocytic, Incidental.  
 Discolored, Left, 0-2 mm, Pale/ 2-foci Round Nephropathy, chronic, Moderate.  
 N-Sarcoma, histiocytic, Incidental.

Animal: 6836G661 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 735 Dosing phase Status: Final phase sacrifice Terminal body weight (g): 242.0

Tissue Gross observations / Comments Correlated microscopic observations  
 Uterus . . . . . Mass, Right, 21-45 mm, Red, Soft, +4/ Single Oval B-Polyp, endometrial stromal, Incidental.  
 Ovaries . . . . . Cyst, Left, 6-10 mm, Yellow, Watery, +4/ Single Round Cyst, follicular, Present.  
 Animal: 6836G663 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 737 Dosing phase Status: Final phase sacrifice Terminal body weight (g): 258.5

Tissue Gross observations / Comments Correlated microscopic observations  
 Pituitary gland . . . . . Discolored, Patchy, Black, +1/ Irregular B-Adenoma, pars distalis, Incidental.

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Animal: 6836664      Sex: Female      Status: Sacrificed moribund      Group: 3      Dose level: 10 g/m3  
 Day of death: 562 Dosing phase      Terminal body weight (g): 223.0

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Pituitary gland . . . Discolored, 0-2 mm, Dark, +1/ Focus Round      Cyst, Mild.  
 Animal: 6836665      Sex: Female      Dose level: 10 g/m3  
 Day of death: 511 Dosing phase      Status: Found Dead      Group: 3      Terminal body weight (g): 191.0

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Lungs . . . . . Discolored, All Lobes, Diffuse, Dark Red, +4      Congestion, Mild.  
 Uterus . . . . . Discolored, Right Horn, Diffuse, Black, +4/ Left Horn      B-Polyp, endometrial stromal, Incidental.  
 Brain . . . . . Deformity, 6-10 mm/ Depressed      Compression, Moderate.  
 Pituitary gland . . . Mass, 6-10 mm, Dark Red, Soft/ Round      B-Adenoma, pars distalis, Incidental.  
 Ovaries . . . . . Discolored, Diffuse, Red, +3      Congestion, Mild.  
 Animal: 6836666      Sex: Female      Dose level: 10 g/m3  
 Day of death: 737 Dosing phase      Status: Final phase sacrifice      Group: 3      Terminal body weight (g): 226.0

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Eyes/optic nerve . Small, Left, Diffuse, +1/ Irregular      Examined; no correlation found  
 Brain . . . . . Deformity, 6-10 mm, +2/ Irregular      Compression, Moderate.  
 Pituitary gland . . . Mass, 6-10 mm, Dark, Firm, +2/ Diffuse Irregular      B-Adenoma, pars distalis, Incidental.  
 Mandibular LN . . . Enlarged, 3-5 mm, +1/ Multiple Irregular      Examined; no correlation found  
 Uterus . . . . . Mass, Right, 11-15 mm, Firm, +2/ Irregular      B-Polyp, endometrial stromal, Incidental.  
 Skin . . . . . Crust, Irregular, Dark Red, Hard, +1/ Left eye      Fibrosis, Moderate.

Animal: 6836667      Sex: Female      Dose level: 10 g/m3  
 Day of death: 735 Dosing phase      Status: Final phase sacrifice      Group: 3      Terminal body weight (g): 271.4

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Lungs . . . . . Discolored, Diffuse, Mottled Red, +2      Examined; no correlation found  
 Uterus . . . . . Mass, Left, 6-10 mm, Pale, Firm      B-Polyp, endometrial stromal, Incidental.

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Animal: 6836G668      Sex: Female      Group: 3      Dose level: 10 g/m3  
 Day of death: 738 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 212.8

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Cervix . . . . . Enlarged, 6-10 mm, +2/ Diffuse      Examined; no correlation found  
 Adrenal glands . . . . . Enlarged, Right, 6-10 mm, +1/ Diffuse      B-Pheochromocytoma, benign, Incidental.

Animal: 6836G669      Sex: Female      Group: 3      Dose level: 10 g/m3  
 Day of death: 738 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 256.3

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Uterus . . . . . Discolored, Right, 11-15 mm, Mottled, +2/ Focus Irregular      B-Polyp, endometrial stromal, Incidental.  
 Clitoral gland . . . . . Thick, Right, Mottled, Soft, +3/ Lower      B-Polyp, endometrial stromal, Incidental.  
 Pituitary gland . . . . . Mass, Left, 11-15 mm, Mottled, Firm, +3/ Single Round      B-Adenoma, Incidental.  
 Brain . . . . . Enlarged, 3-5 mm, Purple, Soft, +3/ Round      B-Adenoma, pars distalis, Incidental.  
 . . . . . Deformity, 3-5 mm, +3/ Round      Compression, Mild.

Animal: 6836G670      Sex: Female      Group: 3      Dose level: 10 g/m3  
 Day of death: 734 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 267.4

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Uterus . . . . . Mass, Left, 11-15 mm, Soft/ Single Oval      Hyperplasia, cystic endometrial, Moderate.  
 Animal: 6836G671      Sex: Female      Group: 3      Dose level: 10 g/m3  
 Day of death: 548 Dosing phase      Status: Found Dead      Terminal body weight (g): 240.6

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Duodenum . . . . . Discolored, Diffuse, Dark Red, +3      Examined; no correlation found  
 Ileum . . . . . Discolored, Diffuse, Dark Red, +3      Examined; no correlation found  
 Jejunum . . . . . Discolored, Diffuse, Dark Red, +3      Examined; no correlation found  
 Uterus . . . . . Mass, 21-45 mm, Red, Soft, +4/ Single Irregular      M-Leiomyosarcoma, Contributory.

Animal: 6836G672      Sex: Female      Group: 3      Dose level: 10 g/m3  
 Day of death: 734 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 283.2

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Pituitary gland . . . . . Discolored, 3-5 mm, Purple, +3/ Foci Oval      B-Adenoma, pars distalis, Incidental.  
 Mandibular LN . . . . . Enlarged, 11-15 mm, White, Firm, +3/ Single Oval      (Mammary gland) B-Fibroadenoma, Incidental.

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Animal: 6836672	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 283.2	
Tissue Gross observations / Comments			
(continued)			
Mammary gland . . . . .	Mass, Right, 21-45 mm, Mottled, Firm, +3/ Single Oval Upper Right	B-Fibroadenoma, Incidental.	Correlated microscopic observations
Animal: 6836673	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 242.1	
Tissue Gross observations / Comments			
Correlated microscopic observations			
Lungs . . . . .	Discolored, 0-2 mm, Red/ Multifocal Round	Examined; no correlation found	
Uterus . . . . .	Enlarged, Bilateral, +1	Dilatation, Minimal.	
Cervix . . . . .	Enlarged, Firm, +1	Examined; no correlation found	
Animal: 6836674	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 287.6	
Tissue Gross observations / Comments			
Correlated microscopic observations			
Uterus . . . . .	Cyst, Left, 6-10 mm, Opaque, Watery/ Single Oval	Hyperplasia, cystic endometrial, Moderate.	
Animal: 6836675	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 257.6	
Tissue Gross observations / Comments			
Correlated microscopic observations			
Pituitary gland . . . . .	Discolored, 3-5 mm, Purple, +2/ Single Irregular	Cyst, Moderate.	
Spleen . . . . .	Enlarged, 46-67 mm, Dark Red, +2	M-Leukemia, mononuclear, Incidental.	
Ovaries . . . . .	Cyst, Right, 6-10 mm, Yellow, Watery, +2/ Single Round	Cyst, bursa, Present.	
Animal: 6836676	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 654 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 232.8	
Tissue Gross observations / Comments			
Correlated microscopic observations			
Lungs . . . . .	Discolored, All Lobes, Diffuse, Mottled, +1	N-Leukemia, mononuclear - capillary involvement, Contributory.	
Spleen . . . . .	Enlarged, 68-89 mm, Dark Red, +2	M-Leukemia, mononuclear, Contributory.	
Liver . . . . .	Discolored, Diffuse, Mottled, +3	M-Leukemia, mononuclear, Contributory.	
Uterus . . . . .	Enlarged, Bilateral, 11-15 mm, Pale, +3/ Oval	B-Polyp, endometrial stromal, Incidental.	
Pituitary gland . . . . .	Discolored, 11-15 mm, Purple, +1/ Foci Irregular	Angiectasis, Moderate.	

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Animal: 6836677	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 268.4	
Tissue Gross observations / Comments			
Lungs . . . . .	Discolored, Diffuse, Mottled Red, +2	Examined; no correlation found	
Animal: 6836678	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 696 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 235.4	
Tissue Gross observations / Comments			
Pituitary gland . .	Enlarged, 3-5 mm, Purple, Firm, +2/ Round	B-Adenoma, pars distalis, Incidental.	
Clitoral gland . .	Mass, 11-15 mm, Purple, Firm, +3/ Single Irregular	N-Adenocarcinoma, Incidental.	
Animal: 6836679	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 654 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 217.4	
Tissue Gross observations / Comments			
Mammary gland . . .	Discolored, Diffuse, Brown, +2	Examined; no correlation found	
Pituitary gland . .	Mass, 6-10 mm, Firm	B-Adenoma, pars distalis, Incidental.	
Brain . . . . .	Deformity, 6-10 mm	Compression, Moderate.	
Animal: 6836680	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 645 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 213.1	
Tissue Gross observations / Comments			
Spleen . . . . .	Enlarged, 68-89 mm/ Diffuse	M-Leukemia, mononuclear, Contributory.	
Liver . . . . .	Discolored, Diffuse, Mottled, +1	M-Leukemia, mononuclear, Contributory.	
Lymph node other .	Enlarged, Renal, 6-10 mm, Firm/ Oval Bilateral	N-Leukemia, mononuclear, Incidental.	
Pituitary gland . .	Discolored, 0-2 mm, Dark/ 1 Focus Round	Cyst, Mild.	
Animal: 6836681	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 272.3	
Tissue Gross observations / Comments			
Pituitary gland . .	Discolored, 0-2 mm, Dark, +1/ Focus	Examined; no correlation found	

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Animal: 6836682	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 647 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 223.1	
Tissue      Gross observations / Comments      Correlated microscopic observations			
Mandibular LN . . .	Enlarged, 6-10 mm, Pale, +3/ Oval Multiple	N-Leukemia, mononuclear, Incidental.	
Mediastinal LN . . .	Enlarged, 6-10 mm, Pale, +4/ Multiple Oval	N-Leukemia, mononuclear, Incidental.	
Bronchial (TBLN) .	Enlarged, 6-10 mm, Pale, +4/ Oval	N-Leukemia, mononuclear, Incidental.	
Lungs . . . . .	Discolored, All Lobes, Round, Brown, +4/ Foci	N-Leukemia, mononuclear - invasive involvement, Contributory.	
Lymph node other .	Enlarged, Axillary, 11-15 mm, Pale, +3/ Oval	N-Leukemia, mononuclear, Incidental.	
	Enlarged, Renal, 6-10 mm, Pale, +3/ Multiple	N-Leukemia, mononuclear, Incidental.	
Spleen . . . . .	Enlarged, 46-67 mm, Dark Red, +2	M-Leukemia, mononuclear, Contributory.	
Liver . . . . .	Discolored, Diffuse, Mottled, +3	M-Leukemia, mononuclear, Contributory.	
	Thick, Mottled, +3	M-Leukemia, mononuclear, Contributory.	
Mesenteric LN . . .	Enlarged, 6-10 mm, Pale, +4/ Multiple	N-Leukemia, mononuclear, Incidental.	
Pancreatic LN . . .	Enlarged, 6-10 mm, Pale, +3/ Multiple	N-Leukemia, mononuclear, Incidental.	
Iliac LN . . . . .	Enlarged, Left, 6-10 mm, +2/ Single	N-Leukemia, mononuclear, Incidental.	
	Discolored, Left, Black, +3	Examined; no correlation found	
Animal: 6836683	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 702 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 240.7	
Tissue      Gross observations / Comments      Correlated microscopic observations			
Uterus . . . . .	Dilatation, Right, 6-10 mm, Mottled, +2/ Lower Right	Dilatation, Mild.	
	Mass, Right, 46-67 mm, Purple, +4/ Upper Right Oval	B-Polyp, endometrial stromal, Incidental.	
Harderian gland . .	Discolored, Right, Diffuse, Mottled, +3	B-Polyp, endometrial stromal, Incidental.	
Pituitary gland . .	Discolored, 0-2 mm, Purple, +1/ Single Round	Pigment, Mild.	
		Angiectasis, Mild.	

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Animal: 6836684 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 737 Dosing phase Status: Final phase sacrifice Terminal body weight (g): 287.6

Tissue Gross observations / Comments Correlated microscopic observations  
 Pituitary gland . . . Discolored, 0-2 mm, Red, +2/ Focus Round Hyperplasia, focal, Mild.  
 Tiss.not specifi . . . Mass, Neck, 6-10 mm, Mottled, Firm, +1/ Oval (Mammary gland) B-Fibroadenoma, Incidental.  
 Subcutaneous  
 Animal: 6836685 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 540 Dosing phase Status: Sacrificed moribund Terminal body weight (g): 186.6

Tissue Gross observations / Comments Correlated microscopic observations  
 Liver . . . . . Discolored, Diffuse, Mottled, Friable, +2/ Pale M-Leukemia, mononuclear, Contributory.  
 Pituitary gland . . . Discolored, Black, +4/ Focus Angiectasis, Moderate.  
 Spleen . . . . . Enlarged, 46-67 mm, +2/ Diffuse M-Leukemia, mononuclear, Contributory.  
 Animal: 6836686 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 734 Dosing phase Status: Final phase sacrifice Terminal body weight (g): 231.0

Tissue Gross observations / Comments Correlated microscopic observations  
 Spleen . . . . . Enlarged, 46-67 mm, +3/ Diffuse M-Leukemia, mononuclear, Incidental.  
 Thyroid glands . . . Enlarged, Right, 6-10 mm, Dark, Firm, +2/ Diffuse B-Adenoma, C-cell, Incidental.  
 Lungs . . . . . Nodule, Right caudal, 0-2 mm, Clear, Firm, +2/ Round N-Leukemia, mononuclear - invasive involvement, Incidental.  
 Bronchial (TBLN) . . Enlarged, 6-10 mm, +3/ Diffuse Irregular Inflammation, mixed, Minimal.  
 Animal: 6836687 Sex: Female Group: 3 Dose level: 10 g/m3  
 Day of death: 680 Dosing phase Status: Sacrificed moribund Terminal body weight (g): 223.0

Tissue Gross observations / Comments Correlated microscopic observations  
 Mammary gland . . . Mass, Left, 21-45 mm, Dark, Firm/ Irregular M-Adenocarcinoma, Incidental.  
 Spleen . . . . . Enlarged, 46-67 mm/ Diffuse M-Leukemia, mononuclear, Contributory.  
 Clitoral gland . . . Mass, Left, 21-45 mm, Mottled, Firm/ Diffuse Irregular N-Adenocarcinoma, Incidental.  
 Liver . . . . . Discolored, Diffuse, Mottled, +3 M-Leukemia, mononuclear, Contributory.  
 Brain . . . . . Deformity, 6-10 mm Compression, Moderate.  
 Pituitary gland . . . Mass, 6-10 mm, Dark, Firm/ Diffuse Irregular B-Adenoma, pars distalis, Incidental.

Tissue	Gross observations / Comments	Correlated microscopic observations
Mediastinal LN	. . . Enlarged, 6-10 mm, +1	B-Thymoma, Incidental.
Spleen	. . . . . Enlarged, 68-89 mm, +2	M-Leukemia, mononuclear, Contributory.
Pancreatic LN	. . . . . Enlarged, 3-5 mm, +1	N-Leukemia, mononuclear, Incidental.
Iliac LN	. . . . . Enlarged, 6-10 mm, +1	N-Leukemia, mononuclear, Incidental.
Bone, other	. . . . . Deformity, Rt Fore Paw, +3	Fracture, Present.
Animal: 6836G689	Sex: Female	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 241.1
Tissue	Gross observations / Comments	Correlated microscopic observations
Eyes/optic nerve	. Crust, Right, Diffuse, Red, +1	Examined; no correlation found
Pituitary gland	. . Discolored, Surface, 3-5 mm, Black/ Single Round	Cyst, Moderate.
Tail	. . . . . Crust, Surface, Diffuse, Brown, Hard, +4/ Irregular Brown/Tan	Hyperplasia/hyperkeratosis, Moderate.
Animal: 6836G690	Sex: Female	Dose level: 10 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 236.8
Tissue	Gross observations / Comments	Correlated microscopic observations
Uterus	. . . . . Mass, Right, 6-10 mm, Mottled, Firm, +2/ Single	Hyperplasia, cystic endometrial, Mild.
Animal: 6836G692	Sex: Female	Dose level: 10 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 244.1
Tissue	Gross observations / Comments	Correlated microscopic observations
Brain	. . . . . Deformity, 3-5 mm/ Single Depressed	Compression, Mild.
Pituitary gland	. . . Enlarged, 3-5 mm, Dark, Soft/ Single Round	B-Adenoma, pars distalis, Incidental.
Lungs	. . . . . Nodule, Left Lobe, 3-5 mm, Tan, Firm/ Single Round	Examined; no correlation found
Animal: 6836G693	Sex: Female	Dose level: 10 g/m3
Day of death: 658 Dosing phase	Status: Found Dead	Terminal body weight (g): 260.8
Tissue	Gross observations / Comments	Correlated microscopic observations
Lungs	. . . . . Discolored, Diffuse, Mottled Red, +4	Examined; no correlation found
Adrenal glands	. . . Mass, Right, 21-45 mm, Mottled, Firm, +4/ Irregular	B-Pheochromocytoma, benign, Contributory.

Animal: 6836G693	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 658 Dosing phase	Status: Found Dead		Terminal body weight (g): 260.8
Tissue Gross observations / Comments			
(continued)			
Correlated microscopic observations			
Cavities . . . . Fluid, Abdominal, Dark Red, Gelatinous, +3	No correlation entry made		
Animal: 6836G694	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 255.8
Tissue Gross observations / Comments			
Correlated microscopic observations			
Pituitary gland . . Discolored, 0-2 mm, Dark, +1/ Single Round	B-Adenoma, pars distalis, Incidental.		
Thyroid glands . . Enlarged, Left, 3-5 mm, +2/ Single Round	B-Adenoma, C-cell, Incidental.		
Animal: 6836G695	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 661 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 204.4
Tissue Gross observations / Comments			
Correlated microscopic observations			
Pituitary gland . . Enlarged, 6-10 mm, Purple, +3/ Irregular	B-Adenoma, pars distalis, Incidental.		
Brain . . . . . Deformity, 6-10 mm, +3/ Irregular	Compression, Marked.		
	(Pituitary gland) B-Adenoma, pars intermedia, Contributory.		
Animal: 6836G697	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 252.0
Tissue Gross observations / Comments			
Correlated microscopic observations			
Mammary gland . . . Mass, Thoracic, 11-15 mm, Firm/ Rt Thoracic	B-Fibroma, Incidental.		
Animal: 6836G698	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 625 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 226.0
Tissue Gross observations / Comments			
Correlated microscopic observations			
Mediastinal LN . . Enlarged, 3-5 mm, Pale, +3/ Multiple, oval	N-Leukemia, mononuclear, Incidental.		
Bronchial (TBLN) . Enlarged, 6-10 mm, Pale, +3/ Single, oval	N-Leukemia, mononuclear, Incidental.		
Spleen . . . . . Enlarged, 46-67 mm, Dark Red, +3	M-Leukemia, mononuclear, Contributory.		
Animal: 6836G699	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 114 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 153.9
Tissue Gross observations / Comments			
Correlated microscopic observations			
Eyes/optic nerve . Discolored, Left, White, +4	Cataract, Present.		

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Animal: 6836G699	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 114 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 153.9
Tissue	Gross observations / Comments (continued)	Correlated microscopic observations	
Tiss.not specifi . Malocclusion, Teeth, +3		No correlation entry made	
Animal: 6836G700	Sex: Female	Group: 3	Dose level: 10 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice		Terminal body weight (g): 209.6
Tissue	Gross observations / Comments	Correlated microscopic observations	
Spleen . . . . . Small, 21-45 mm, +2		Examined; no correlation found	
Uterus . . . . . Mass, Bilateral, 16-20 mm, Mottled, Firm, +3/ Mult Oval		B-Polyp, endometrial stromal, Incidental.	
Animal: 6838H751	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 659 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 197.9
Tissue	Gross observations / Comments	Correlated microscopic observations	
Liver . . . . . Mass, 21-45 mm, Mottled, +4/ Multiple Round		M-Sarcoma. histiocytic, Contributory.	
Spleen . . . . . Enlarged, 21-45 mm, +2		Examined; no correlation found	
Lungs . . . . . Discolored, Patchy, Dark, +3		N-Sarcoma, histiocytic, Contributory.	
Animal: 6838H752	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 687 Dosing phase	Status: Sacrificed moribund		Terminal body weight (g): 216.2
Tissue	Gross observations / Comments	Correlated microscopic observations	
Mandibular LN . . . Enlarged, 6-10 mm, Firm, +2/ Multiple Irregular		N-Leukemia, mononuclear, Incidental.	
Mediastinal LN . . Enlarged, 6-10 mm, Firm, +2/ Multiple Irregular		N-Leukemia, mononuclear, Incidental.	
Bronchial (TBLN) . Enlarged, 3-5 mm, +2/ Diffuse Irregular		N-Leukemia, mononuclear, Incidental.	
Lymph node other . Enlarged, Submandibular, 16-20 mm, Dark Red, Firm, +3/ Multiple Irregular Bilateral		N-Leukemia, mononuclear, Incidental.	
Spleen . . . . . Enlarged, Renal, 6-10 mm, Firm, +2/ Multiple Bilateral		N-Leukemia, mononuclear, Incidental.	
Ovaries . . . . . Enlarged, 68-89 mm, +3/ Diffuse		M-Leukemia, mononuclear, Contributory.	
Uterus . . . . . Enlarged, Bilateral, Diffuse, +1		M-Leukemia, mononuclear, Incidental.	
Mesenteric LN . . . Mass, Right, 16-20 mm, Dark, Soft, +2/ Irregular		Dilatation, Marked.	
Pancreatic LN . . . Enlarged, 21-45 mm, Firm, +2/ Irregular		N-Leukemia, mononuclear, Incidental.	
Pancreatic LN . . . Enlarged, 16-20 mm, Firm, +2		N-Leukemia, mononuclear, Incidental.	



Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen . . . . .	Enlarged, 46-67 mm, Dark Red, +3	M-Leukemia, mononuclear, Contributory.
Cavities . . . . .	Fluid, Abdominal, 2.1-5.0 ml, Red, +2	No correlation entry made
Kidneys . . . . .	Cyst, Right, +3	Cyst, Moderate.
Uterus . . . . .	Focus, Right, 0-2 mm, Purple, +1/ round	B-Polyp, endometrial stromal, Incidental.
Pituitary gland . . . . .	Focus, 0-2 mm, Purple, +1/ round	Hemorrhage, Minimal.
Animal: 6838H758	Sex: Female	Dose level: 20 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 247.8
Tissue	Gross observations / Comments	Correlated microscopic observations
Liver . . . . .	Discolored, Left Lobe, 0-2 mm, Pale/ Focus Round	Examined; no correlation found
Animal: 6838H759	Sex: Female	Dose level: 20 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 230.5
Tissue	Gross observations / Comments	Correlated microscopic observations
Pituitary gland . . . . .	Cyst, 0-2 mm, Grey, Watery, +2/ Single Oval	Cyst, Mild.
Tail . . . . .	Crust, 6-10 mm, Brown, Hard, +4/ Multiple Irregular	Hyperplasia/hyperkeratosis, Marked.
Ovaries . . . . .	Cyst, Left, 6-10 mm, Yellow, Watery, +3/ Single Round	Cyst, bursa, Present.
Animal: 6838H761	Sex: Female	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 244.4
Tissue	Gross observations / Comments	Correlated microscopic observations
Mandibular LN . . . . .	Enlarged, 3-5 mm, +1/ Multiple	N-Leukemia, mononuclear, Incidental.
Mammary gland . . . . .	Mass, Left, 11-15 mm, Firm, +2	B-Fibroadenoma, Incidental.
Spleen . . . . .	Enlarged, 21-45 mm, +2/ Diffuse Irregular	M-Leukemia, mononuclear, Incidental.
Bone, rib . . . . .	Mass, Left, 11-15 mm, Mottled, Firm, +3/ Irregular	M-Osteosarcoma, Incidental.
Animal: 6838H762	Sex: Female	Dose level: 20 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 237.7
Tissue	Gross observations / Comments	Correlated microscopic observations
Brain . . . . .	Deformity, 0-2 mm/ Single Depressed	Compression, Mild.

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Animal: 6838H762      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 737 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 237.7

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Eyes/optic nerve      . Crust, Left, Diffuse, Red, +1 (continued)      No correlation entry made  
 Liver      . . . . . Discolored, Diffuse, Mottled, Friable, +2/ Irregular      Examined; no correlation found  
 Kidneys      . . . . . Cyst, Left, 6-10 mm, Opaque, Watery/ Single Oval      Cyst, Mild.  
 Pituitary gland      . . . . . Enlarged, 3-5 mm, Dark, Soft/ Single Round      Angiectasis, Marked.

Animal: 6838H763      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 490 Dosing phase      Status: Sacrificed moribund      Terminal body weight (g): 229.8

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Liver      . . . . . Discolored, Diffuse, Pale, +3      Necrosis, Moderate.  
 Uterus      . . . . . Enlarged, Left, 46-67 mm, Soft/ Dark Red/Black Irregular      B-Polyp, endometrial stromal, Contributory.

Animal: 6838H764      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 526 Dosing phase      Status: Sacrificed moribund      Terminal body weight (g): 186.0

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Spleen      . . . . . Enlarged, 46-67 mm      M-Leukemia, mononuclear, Contributory.

Animal: 6838H766      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 478 Dosing phase      Status: Sacrificed moribund      Terminal body weight (g): 198.3

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Spleen      . . . . . Enlarged, 68-89 mm      M-Leukemia, mononuclear, Contributory.  
 Lungs      . . . . . Discolored, Multiple, Mottled Red, +2      Hemorrhage, Mild.

Animal: 6838H767      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 735 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 251.5

Tissue      Gross observations / Comments      Correlated microscopic observations  
 Eyes/optic nerve      . Discolored, Right, Diffuse, Opaque, +3      Atrophy, Marked.  
 Spleen      . . . . . Enlarged, 46-67 mm, +2      M-Leukemia, mononuclear, Incidental.  
 Uterus      . . . . . Mass, Right, Oval, Red, Firm, +2      B-Polyp, endometrial stromal, Incidental.

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Animal: 6838H768	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 242.4	
Tissue Gross observations / Comments Correlated microscopic observations			
Pituitary gland . . . . .	Discolored, 3-5 mm, Dark, +2/ Multifocus Irregular	Angiectasis, Moderate.	
Liver . . . . .	Thick, Left Lobe, Patchy, +2/ Irregular	M-Leukemia, mononuclear, Incidental.	
Animal: 6838H769	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 736 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 232.5	
Tissue Gross observations / Comments Correlated microscopic observations			
Brain . . . . .	Deformity, 3-5 mm/ Single Depressed	Compression, Mild.	
Pituitary gland . . . . .	Enlarged, 3-5 mm, Dark/ Single Round	B-Adenoma, pars distalis, Incidental.	
Uterus . . . . .	Intussusception, Right, Single	Intussusception, Present.	
Cervix . . . . .	Mass, 11-15 mm, Dark, Firm/ Single Round	B-Polyp, endometrial stromal, Incidental.	
Animal: 6838H770	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 661 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 198.8	
Tissue Gross observations / Comments Correlated microscopic observations			
Mediastinal LN . . . . .	Enlarged, 6-10 mm, +2/ Oval	N-Leukemia, mononuclear, Incidental.	
Spleen . . . . .	Enlarged, 46-67 mm, +2/ Diffuse	M-Leukemia, mononuclear, Contributory.	
Uterus . . . . .	Mass, Bilateral, 3-5 mm, Pale, Firm/ 2 Round	B-Polyp, endometrial stromal, Incidental.	
Ovaries . . . . .	Discolored, Left, 6-10 mm, Dark, Soft, +3	B-Polyp, endometrial stromal, Incidental.	
Pituitary gland . . . . .	Discolored, 3-5 mm, Purple, +1/ Focus Irregular	Examined; no correlation found	
Animal: 6838H771	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 217.7	
Tissue Gross observations / Comments Correlated microscopic observations			
Liver . . . . .	Hernia, Median Lobe, 6-10 mm, +2/ Multiple Irregular	Hepatodiaphragmatic nodule, Present.	
Lungs . . . . .	Discolored, Left Lobe, 3-5 mm, White, +1/ Focus Irregular	Alveolar histiocytosis, Minimal.	
Cervix . . . . .	Enlarged, 6-10 mm, +1/ Diffuse	Examined; no correlation found	

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Animal: 6838H772      Sex: Female      Status: Sacrificed moribund      Group: 4      Dose level: 20 g/m3  
 Day of death: 729 Dosing phase      Terminal body weight (g): 185.1

Tissue	Gross observations / Comments	Correlated microscopic observations
Ovaries . . . . .	Small, Right, 0-2 mm, +2	Examined; no correlation found
Uterus . . . . .	Mass, Right, 6-10 mm, Pale, Firm/ Single Irregular	B-Polyp, endometrial stromal, Incidental.
Spleen . . . . .	Discolored, Diffuse, Mottled Red, +2	Necrosis, Marked.
Ileum . . . . .	Discolored, 3-5 mm, Red, Soft, +2/ Multifoci Oval	M-Leukemia, mononuclear, Contributory.
Liver . . . . .	Discolored, Diffuse, Mottled Red, Friable, +2	N-Leukemia, mononuclear, Incidental.
Lungs . . . . .	Discolored, Left Lobe, 0-2 mm, Pale, Soft/ Single Round	M-Leukemia, mononuclear, Contributory. Hyperplasia, alveolar epithelial, focal, Mild.

Animal: 6838H773      Sex: Female      Status: Final phase sacrifice      Group: 4      Dose level: 20 g/m3  
 Day of death: 734 Dosing phase      Terminal body weight (g): 256.8

Tissue	Gross observations / Comments	Correlated microscopic observations
Mammary gland . . . . .	Mass, Left Inguinal, 46-67 mm, Mottled, Firm, +3/ Irregular	B-Fibroadenoma, Incidental.

Animal: 6838H774      Sex: Female      Status: Sacrificed moribund      Group: 4      Dose level: 20 g/m3  
 Day of death: 489 Dosing phase      Terminal body weight (g): 190.1

Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen . . . . .	Enlarged, 46-67 mm	M-Leukemia, mononuclear, Contributory.
Lungs . . . . .	Discolored, 0-2 mm, Dark, Soft/ Multifoci	Hemorrhage, Minimal. N-Leukemia, mononuclear - capillary involvement, Contributory.

Animal: 6838H775      Sex: Female      Status: Sacrificed moribund      Group: 4      Dose level: 20 g/m3  
 Day of death: 688 Dosing phase      Terminal body weight (g): 191.6

Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen . . . . .	Enlarged, 46-67 mm, +1/ Diffuse	M-Leukemia, mononuclear, Contributory.
Liver . . . . .	Discolored, Diffuse, Mottled, +1	M-Leukemia, mononuclear, Contributory.

Animal: 6838H776	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 261.4	
Tissue Gross observations / Comments			
Eyes/optic nerve	. Crust, Right, Diffuse, Red, +1	No correlation entry made	
Lungs	. . . . Discolored, All Lobes, 0-2 mm, Red, +1/ Diffuse Round	Examined; no correlation found	
Thyroid glands	. . Discolored, Left, 0-2 mm, Dark/ Round, 2 quantity	Hyperplasia, C-cell, focal, Moderate.	
Animal: 6838H777	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 242.5	
Tissue Gross observations / Comments			
Eyes/optic nerve	. Discolored, Left, Diffuse, Opaque, +3	Cataract, Present.	
Animal: 6838H778	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 218.1	
Tissue Gross observations / Comments			
Mediastinal LN	. . Enlarged, 3-5 mm, Brown, +3/ Single Oval	N-Leukemia, mononuclear, Incidental.	
Spleen	. . . . Enlarged, 68-89 mm, Dark Red, +3	M-Leukemia, mononuclear, Contributory.	
	Discolored, 6-10 mm, Yellow, +2/ Focus Irregular	Necrosis, Moderate.	
Animal: 6838H779	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 265.1	
Tissue Gross observations / Comments			
Pituitary gland	. . Nodule, 0-2 mm, Soft	B-Adenoma, pars distalis, Incidental.	
Animal: 6838H780	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 236.3	
Tissue Gross observations / Comments			
Spleen	. . . . Enlarged, 46-67 mm, Dark Red, +2	M-Leukemia, mononuclear, Contributory.	
Uterus	. . . . Mass, Right, 16-20 mm, Purple, Rubbery, +3/ Round	B-Polyp, endometrial stromal, Incidental.	
Animal: 6838H782	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 735 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 240.3	
Tissue Gross observations / Comments			
Eyes/optic nerve	. Small, Left, Diffuse, +2	No correlation entry made	
Mammary gland	. . . Mass, Right, 21-45 mm, Mottled, Firm, +4/ Irregular	B-Fibroadenoma, Incidental.	

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Animal: 6838H783      Sex: Female      Status: Sacrificed moribund      Group: 4      Dose level: 20 g/m3  
 Day of death: 710 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Liver . . . . . Discolored, Diffuse, Mottled, +2      Fatty Change, Mild.

Brain . . . . . Deformity, 6-10 mm, +3/ Irregular      Compression, Moderate.

Pituitary gland . . . . . Mass, 11-15 mm, Mottled Red, +3/ Round, Diffuse      B-Adenoma, pars distalis, Incidental.

Animal: 6838H785      Sex: Female      Status: Sacrificed moribund      Group: 4      Dose level: 20 g/m3  
 Day of death: 476 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Eyes/optic nerve . . . . . Discolored, Diffuse, +3/ Pale Yellow      Mineralization, corneal stromal, Mild.

Liver . . . . . Enlarged, Diffuse, Soft, +1/ Mottled pale      M-Leukemia, mononuclear, Contributory.

Pancreas . . . . . Small, Diffuse, +3/ Pale Yellow      Examined; no correlation found

Spleen . . . . . Enlarged, 46-67 mm      M-Leukemia, mononuclear, Contributory.

Lungs . . . . . Discolored, Diffuse, +2/ Dull Yellow      N-Leukemia, mononuclear - capillary involvement, Contributory.

Discolored, Left Lobe, 0-2 mm, Red/ Focus Round      N-Leukemia, mononuclear - capillary involvement, Contributory.

Animal: 6838H786      Sex: Female      Status: Found Dead      Group: 4      Dose level: 20 g/m3  
 Day of death: 716 Dosing phase

Tissue      Gross observations / Comments      Correlated microscopic observations

Thyroid glands . . . . . Enlarged, Bilateral, 3-5 mm, +1/ Diffuse      Examined; no correlation found

Lungs . . . . . Discolored, Diffuse, Mottled, +2      Examined; no correlation found

Uterus . . . . . Mass, Right, 68-89 mm, Dark Red, Firm, +4/ Diffuse Irregular      Intussusception, Present.

Liver . . . . . Hernia, Median Lobe, 6-10 mm, Mottled, Firm, +3/ Irregular      Hepatodiaphragmatic nodule, Present.

Adrenal glands . . . . . Discolored, Left, Patchy, Dark, +1      Examined; no correlation found

Eyes/optic nerve . . . . . Discolored, Bilateral, Diffuse, Pale, +2      Examined; no correlation found

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Animal: 6838H787      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 736 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 266.0

Tissue      Gross observations / Comments      Correlated microscopic observations

Brain . . . . . Deformity, 6-10 mm, +1      Compression, Mild.

Liver . . . . . Discolored, Diffuse, Mottled Red, +3      M-Leukemia, mononuclear, Incidental.

Kidneys . . . . . Discolored, Bilateral, Diffuse, Mottled Brown, +2/  
 Irregular      Nephropathy, chronic, Moderate.

Spleen . . . . . Enlarged, 46-67 mm, +1      M-Leukemia, mononuclear, Incidental.

Pituitary gland . . . . . Mass, 6-10 mm, Mottled, Soft      B-Adenoma, pars distalis, Incidental.

Animal: 6838H788      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 738 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 244.1

Tissue      Gross observations / Comments      Correlated microscopic observations

Pituitary gland . . . . . Discolored, 3-5 mm, Dark Red, +2/ Irregular      B-Adenoma, pars distalis, Incidental.

Animal: 6838H790      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 734 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 238.2

Tissue      Gross observations / Comments      Correlated microscopic observations

Brain . . . . . Deformity, 3-5 mm, +3/ Round      Compression, Moderate.

Pituitary gland . . . . . Enlarged, 3-5 mm, Purple, +3/ Round      B-Adenoma, pars distalis, Incidental.

Animal: 6838H791      Sex: Female      Group: 4      Dose level: 20 g/m3  
 Day of death: 738 Dosing phase      Status: Final phase sacrifice      Terminal body weight (g): 265.6

Tissue      Gross observations / Comments      Correlated microscopic observations

Thyroid glands . . . . . Enlarged, Left, 6-10 mm/ Single Oval      B-Adenoma, C-cell, Incidental.

Lungs . . . . . Discolored, All Lobes, 0-2 mm, Red/ Multifocal Round      N-Leukemia, mononuclear - capillary involvement, Contributory.

Spleen . . . . . Enlarged, 68-89 mm      M-Leukemia, mononuclear, Contributory.

Uterus . . . . . Mass, Right, 3-5 mm, Opaque, Firm/ Single Round      B-Polyp, endometrial stromal, Incidental.

Liver . . . . . Discolored, Diffuse, Mottled, Friable, +3/ Irregular      M-Leukemia, mononuclear, Contributory.

Pituitary gland . . . . . Discolored, 0-2 mm, Dark, Soft/ Single Round      B-Adenoma, pars distalis, Incidental.

Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen . . . . .	Enlarged, 68-89 mm, Dark Red, +3	M-Leukemia, mononuclear, Contributory.
Mediastinal LN . . . . .	Discolored, Diffuse, Red, +3	Examined; no correlation found
Animal: 6838H793	Sex: Female	Dose level: 20 g/m3
Day of death: 738 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 231.8
Tissue	Gross observations / Comments	Correlated microscopic observations
Spleen . . . . .	Enlarged, 46-67 mm	M-Leukemia, mononuclear, Contributory.
Animal: 6838H795	Sex: Female	Dose level: 20 g/m3
Day of death: 716 Dosing phase	Status: Found Dead	Terminal body weight (g): 219.8
Tissue	Gross observations / Comments	Correlated microscopic observations
Lungs . . . . .	Discolored, All Lobes, Diffuse, Dark Red, +4	Congestion, Mild.
Ovaries . . . . .	Discolored, Bilateral, Diffuse, Purple, +4	Examined; no correlation found
Uterus . . . . .	Discolored, Bilateral, Diffuse, Purple, +4	Examined; no correlation found
Animal: 6838H797	Sex: Female	Dose level: 20 g/m3
Day of death: 605 Dosing phase	Status: Sacrificed moribund	Terminal body weight (g): 223.3
Tissue	Gross observations / Comments	Correlated microscopic observations
Liver . . . . .	Discolored, Diffuse, Mottled, +3	M-Leukemia, mononuclear, Contributory.
Spleen . . . . .	Enlarged, 21-45 mm, Red, +3	M-Leukemia, mononuclear, Contributory.
Lungs . . . . .	Discolored, 0-2 mm, Dark/ Multifocal Round	N-Leukemia, mononuclear - capillary involvement, Contributory.
Animal: 6838H798	Sex: Female	Dose level: 20 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 256.0
Tissue	Gross observations / Comments	Correlated microscopic observations
Eyes/optic nerve . . . . .	Discolored, Left, Diffuse, Opaque, +4	Cataract, Present.
Uterus . . . . .	Enlarged, Left, 6-10 mm, Soft/ Patchy	B-Polyp, endometrial stromal, Incidental.
Mammary gland . . . . .	Mass, Right, 46-67 mm, Mottled, Firm/ Right Abdomen Diffuse Irregular	B-Fibroadenoma, Incidental.

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Animal: 6838H799	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 737 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 215.8	
Tissue Gross observations / Comments Correlated microscopic observations			
Brain . . . . .	Deformity, 3-5 mm/ Single Depression	Compression, Moderate.	
Pituitary gland . . . . .	Enlarged, 6-10 mm, Dark, Soft/ Single Round	B-Adenoma, pars distalis, Incidental.	
Cervix . . . . .	Enlarged, 6-10 mm, Firm, +3/ Single	Examined; no correlation found	
Animal: 6838H800	Sex: Female	Group: 4	Dose level: 20 g/m3
Day of death: 734 Dosing phase	Status: Final phase sacrifice	Terminal body weight (g): 247.9	
Tissue Gross observations / Comments Correlated microscopic observations			
Brain . . . . .	Deformity, 6-10 mm, +2	Compression, Mild.	
Pituitary gland . . . . .	Mass, 6-10 mm, Mottled Red, Firm, +2/ Diffuse Irregular	B-Adenoma, pars distalis, Incidental.	
Spleen . . . . .	Enlarged, 46-67 mm, +3/ Diffuse	M-Leukemia, mononuclear, Contributory.	
Liver . . . . .	Thick, Diffuse, Mottled, +3/ Irregular	M-Leukemia, mononuclear, Contributory.	

N-8 Histological Comments on Tissue

Animal Number	Sex	Group/ Subgroup	Date and Data was entered	Time entered	Oper. #	Tissue	Special histological comment
6832E452	F	1/1	28-Oct-03	14:55	142	Parathyroid	One of pair not represented on slide.
6832E453	F	1/1	28-Oct-03	15:53	142	Parathyroid	One of pair not represented on slide.
6832E454	F	1/1	03-Nov-03	11:51	142	Bronchial (TBLN)	TBLN noted missing at trim.
			04-Feb-04	12:29	142	Ovaries	Tissue not represented on slide. Oviducts only on original and recuts 1, 2.
6832E455	F	1/1	18-Nov-03	11:07	142	Parathyroid	One of pair not represented on slide.
6832E457	F	1/1	04-Nov-03	07:10	142	Parathyroid	One of pair not represented on slide.
6832E461	F	1/1	05-Feb-04	09:00	142	Parathyroid	One of pair not represented on slide.
6832E463	F	1/1	05-Nov-03	10:06	142	Parathyroid	One of pair not represented on slide.
6832E465	F	1/1	04-Nov-03	08:14	142	Parathyroid	One of pair not represented on slide.
6832E466	F	1/1	18-Nov-03	11:38	142	Rectum	Formalin injection artifact
6832E467	F	1/1	05-Nov-03	12:26	142	Parathyroid	One of pair not represented on slide.
6832E471	F	1/1	18-Nov-03	14:13	142	Parathyroid	One of pair not represented on slide.
6832E472	F	1/1	05-Nov-03	15:21	142	Pituitary gland	Focus of chromophobe like cells (without cytologic or structural changes sufficient to call hyperplasia)
6832E473	F	1/1	20-Oct-03	15:50	142	Parathyroid	One of pair not represented on slide
6832E475	F	1/1	04-Feb-04	12:38	142	Mandibular LN	Tissue not represented on slide or recut
6832E476	F	1/1	04-Feb-04	12:40	142	Parathyroid	Tissue not represented on slide or recut
6832E477	F	1/1	04-Nov-03	11:55	142	Parathyroid	One of pair not represented on slide.
6832E478	F	1/1	04-Feb-04	12:41	142	Parathyroid	Tissue not represented on slide or recut
6832E479	F	1/1	26-Dec-03	16:38	142	Parathyroid	One of pair not represented on slide.
6832E480	F	1/1	18-Nov-03	16:14	142	Spinal cord	Fragmented sample
6832E482	F	1/1	12-Jan-04	12:32	142	Parathyroid	No parathyroids, distortion due to thyroid mass
6832E485	F	1/1	18-Nov-03	17:16	142	Parathyroid	One of pair not represented on slide.
6832E487	F	1/1	19-Nov-03	09:07	142	Adrenal glands	Mass interpreted as pheochromocytoma (3 foci in current plane of section) with adjacent cortical degeneration.
			04-Feb-04	12:43	142	Ovaries	One of pair not represented on slide or recut

Animal Number	Sex	Group/ Subgroup	Date and Time Data was entered	Oper. #	Tissue	Special histological comment
6832E491	F	1/1	18-Nov-03 16:55	142	Parathyroid	One of pair not represented on slide.
6832E492	F	1/1	04-Feb-04 12:46	142	Parathyroid	One of pair not represented on slide.
6832E496	F	1/1	05-Feb-04 09:01	142	Parathyroid	One of pair not represented on slide.
6832E499	F	1/1	04-Feb-04 12:53	142	Bronchial (TBLN)	Tissue not represented on slide or recut
6834F556	F	2/1	04-Feb-04 12:57	142	Parathyroid	One of pair not represented on slide.
			04-Feb-04 12:58	142	Mandibular LN	Tissue not represented on slide or recut
6834F562	F	2/1	15-Jan-04 12:08	142	Mesenteric LN	Submitted tissue is focus of fat necrosis/steatitis.
			23-Jan-04 12:25	142	Mammary gland	Missing at trim.
			23-Jan-04 12:24	142	Skin	Missing at trim.
6834F568	F	2/1	04-Feb-04 13:45	142	Mammary gland	Tissue not represented on slide or recut
6834F572	F	2/1	09-Jan-04 17:07	142	Pancreas	Small amount of exocrine pancreas present
6834F577	F	2/1	13-Jan-04 14:57	142	Bronchial (TBLN)	Extensive lymphoma, no recut requested.
			04-Feb-04 13:47	142	Parathyroid	One of pair not represented on slide.
			13-Jan-04 14:56	142	Mandibular LN	Extensive lymphoma, no recut requested.
			13-Jan-04 15:01	142	Pancreas	Extensive lymphoma, no recut requested
			13-Jan-04 15:08	142	Pancreatic LN	Tissue submitted as pancreatic lymph node is fat with invasive lymphoma/leukemia.
6834F578	F	2/1	06-Jan-04 17:54	142	Parathyroid	One of pair not represented on slide.
6834F593	F	2/1	04-Feb-04 14:08	142	Bone, femur	Minimal marrow on original or recut
6834F594	F	2/1	16-Jan-04 11:59	142	Mammary gland	In slide 6
6834F599	F	2/1	04-Feb-04 14:11	142	Pancreas	Tissue not represented on slide or recut
6836G653	F	3/1	04-Feb-04 14:12	142	Bronchial (TBLN)	Tissue not represented on slide or recut
			19-Jan-04 10:39	142	Esophagus	Hemorrhage in adjacent tissue interpreted as immature fibrous tissue--origin and significance uncertain.
			04-Feb-04 14:14	142	Liver	Grossly noted nodule not seen on slide or recut

Animal Number	Sex	Group/ Subgroup	Date and Time Data was entered	Oper. #	Tissue	Special histological comment
6836G653	F	3/1	19-Jan-04 10:37	142	Lymph node other	Bulk of submitted tissue is immature fibrous tissue with mild histiolympocytic inflammation. Small amount of lymph node is unremarkable.
6836G664	F	3/1	19-Jan-04 10:51	142	Adrenal glands	One of pair missing at trim.
6836G672	F	3/1	05-Feb-04 12:28	142	Nose/Turbinates 1	Lost in processing (missing from block).
6836G679	F	3/1	09-Jan-04 12:02	142	Parathyroid	One of pair not represented on slide.
6836G682	F	3/1	09-Jan-04 14:17	142	Parathyroid	One of pair not represented on slide.
			09-Jan-04 14:24	142	Mammary gland	Missing at trim
			09-Jan-04 14:24	142	Skin	Missing at trim
6836G684	F	3/1	20-Feb-04 09:24	142	Tiss.not specifi	Gross mass correlated to mammary gland (fibroadenoma)
6836G688	F	3/1	13-Jan-04 07:13	142	Mediastinal LN	Submitted tissue is thymus containing a benign thymoma.
6836G691	F	3/1	04-Feb-04 14:22	142	Larynx	Original and recut are fragmentary sections not at optimal level
6836G692	F	3/1	04-Feb-04 16:32	142	Lungs	Grossly noted nodule not on slide or recuts.
6836G693	F	3/1	07-Jan-04 11:32	142	Parathyroid	One of pair not represented on slide.
			04-Feb-04 15:00	142	Mediastinal LN	Tissue not represented on slide or recut
6836G695	F	3/1	13-Jan-04 07:27	142	Urinary bladder	Missing at trim
			13-Jan-04 07:42	142	Pituitary gland	Mass within brain section (slide 16) interpreted as pars intermedia pituitary adenoma.
6836G696	F	3/1	04-Feb-04 15:01	142	Parathyroid	One of pair not represented on slide.
6836G698	F	3/1	04-Feb-04 15:04	142	Sciatic nerve	Tissue not represented on slide or recut
			07-Jan-04 11:57	142	Bone, femur	Missing at trim
			07-Jan-04 11:58	142	Spinal cord	Missing at trim
6838H751	F	4/1	11-Nov-03 15:33	142	Parathyroid	One of pair not represented on slide.
6838H752	F	4/1	11-Nov-03 16:18	142	Parathyroid	One of pair not represented on slide.
			12-Nov-03 11:13	142	Spleen	Leukemic cells widely disseminated; present to some degree in many tissues.
6838H753	F	4/1	04-Feb-04 15:17	142	Thyroid glands	Inactive gland (large follicles with flattened epithelium).

Animal Number	Sex	Group/ Subgroup	Date and Time Data was entered	Oper. #	Tissue	Special histological comment
6838H755	F	4/1	12-Nov-03 15:53	142	Ileum	Lamina propria of villi often fragmented areas with lymphocytes and plasma cells, interpreted as artifact.
6838H762	F	4/1	05-Feb-04 12:30	142	Salivary gland	On recut
6838H763	F	4/1	17-Oct-03 16:53	142	Uterus	Polyp necrotic
6838H765	F	4/1	20-Oct-03 11:08	142	Ovaries	Abundant corpora lutea
6838H766	F	4/1	28-Oct-03 15:31	142	Parathyroid	One of pair not represented on slide.
6838H766	F	4/1	04-Feb-04 15:29	142	Mammary gland	Tissue not represented on slide or recut
6838H770	F	4/1	05-Nov-03 16:14	142	Ovaries	No corpora lutea--likely reason for gross description as "small".
			05-Nov-03 16:04	142	Mammary gland	No skin/mammary at trim
			05-Nov-03 16:04	142	Skin	No skin/mammary at trim.
6838H771	F	4/1	05-Nov-03 16:21	142	Parathyroid	One of pair not represented on slide.
6838H772	F	4/1	05-Nov-03 16:43	142	Parathyroid	One of pair not represented on slide.
			05-Nov-03 16:54	142	Ovaries	No corpora lutea on one ovary, likely reason for gross description of "small".
6838H773	F	4/1	05-Nov-03 17:27	142	Pituitary gland	Irregularity interpreted to be due to plane of section.
6838H774	F	4/1	04-Feb-04 15:31	142	Mammary gland	Tissue not represented on slide or recut
6838H777	F	4/1	25-Nov-03 09:11	142	Parathyroid	One of pair not represented on slide.
6838H778	F	4/1	25-Nov-03 09:37	142	Parathyroid	One of pair not represented on slide.
6838H779	F	4/1	04-Feb-04 16:18	142	Bronchial (TBLN)	Tissue not represented on slide or recut
			25-Nov-03 11:34	142	Parathyroid	One of pair not represented on slide.
6838H780	F	4/1	04-Feb-04 16:20	142	Mediastinal LN	Tissue not represented on slide or recut
6838H782	F	4/1	25-Nov-03 13:48	142	Parathyroid	One of pair not represented on slide.
			25-Nov-03 13:57	142	Eyes/optic nerve	One eye specimen is fragmentary, could not correlate gross observation.
6838H786	F	4/1	25-Nov-03 16:03	142	Lungs	Moderate autolysis in all tissues
			25-Nov-03 16:02	142	Parathyroid	One of pair not represented on slide.

Histological Comments on Tissues  
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Animal Number	Sex	Group/ Subgroup	Date and Time Data was entered	Oper. #	Tissue	Special histological comment
6838H786	F	4/1	25-Nov-03 16:12	142	Brain	Focal neuronal swelling and degeneration interpreted as autolysis artifact.
6838H787	F	4/1	25-Nov-03 16:31	142	Parathyroid	One of pair not represented on slide.
6838H788	F	4/1	06-Feb-04 12:23	142	Parathyroid	One of pair not represented on slide.
6838H792	F	4/1	18-Dec-03 15:17	142	Parathyroid	One of pair not represented on slide.
6838H797	F	4/1	26-Dec-03 13:40	142	Mammary gland	In salivary gland section

N-9 Summary of Missing Tissues

Summary Table of Missing Tissues  
Study number: FY01013F

Lovelace Respiratory  
Research Institute  
Rat/F344/N

Tissue	Animals
Bronchial (TBLN)	6832E454 6832E499 6834F577 6836G653 6838H762 6838H779
Thyroid glands	6832E499* 6838H787* 6838H795*
Parathyroid	6832E452* 6832E453* 6832E455* 6832E457* 6832E458* 6832E459* 6832E461* 6832E463* 6832E465* 6832E466* 6832E467*
Parathyroid	6832E471* 6832E473* 6832E476 6832E477* 6832E478 6832E479* 6832E480* 6832E482 6832E483* 6832E484* 6832E485*
Parathyroid	6832E491* 6832E492* 6832E496* 6832E499* 6834F556* 6834F571* 6834F577* 6834F578* 6834F590* 6834F594* 6834F599*
Parathyroid	6836G653* 6836G659* 6836G665* 6836G678* 6836G682* 6836G683* 6836G691* 6836G693* 6836G696* 6838H751*
Parathyroid	6838H752* 6838H757* 6838H760* 6838H761* 6838H765* 6838H766* 6838H771* 6838H772* 6838H777* 6838H778* 6838H779*
Parathyroid	6838H782* 6838H786* 6838H787* 6838H788* 6838H792* 6838H793* 6838H794* 6838H795* 6838H797* 6838H798*
Aorta	6832E476
Mandibular LN	6832E453 6832E463 6832E465 6832E475 6832E480 6832E482 6834F556 6834F577 6834F582 6838H751 6838H767
Mandibular LN	6838H775
Urinary bladder	6836G695
Ileum	6836G665
Pancreas	6834F577 6834F599
Adrenal glands	6834F578* 6836G664*
Mesenteric LN	6834F562
Ovaries	6832E454 6832E487* 6838H792*
Sciatic nerve	6836G698
Mammary gland	6832E465 6834F562 6834F568 6836G682 6838H766 6838H770 6838H774
Skin	6834F562 6836G682 6838H770
Bone, femur	6836G698
Spinal cord	6836G698
Nose/Turbinates 1	6836G672
Pancreatic LN	6834F577
Mediastinal LN	6836G693 6838H771 6838H780 6838H782

\* Only one of the pair is missing

N-10 Lesion Incidence Summary with K-S (comparison > control)

Lovelace Respiratory Research Institute  
 Rat/F344/N  
 Lesion incidence summary with K-S (comparison > control)  
 Study Number:FY01013F  
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Controls from group(s): 1	-- Animals		Affected --	
	--- Females ---	--- Males ---	--- Females ---	--- Males ---
Tissues With Diagnoses	CtIs	2	3	4
Kidneys .....	50	50	50	50
Atrophy	50	20	21	50
Cyst	0	0	0	1
Degeneration, hyaline droplet	1	0	0	3
Dilatation	0	0	0	1
Infarct	0	0	0	1
Nephropathy, chronic	0	0	0	1
Pigment accumulation, tubular epithelium	42	17	15	-43
	0	2	0	2

Note: Entries flagged with a - (minus) are significantly higher than control at the 0.05 level using the Kolmogorov-Smirnov one-tailed test.

All Graded Diagnoses; Phases: All; Death types: All; Date of death range: 28-Aug-01 To 06-Jun-03

APPENDIX O  
STATISTICIAN'S REPORT

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

**Study Number FY01-013**

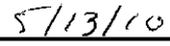
**Study Title: 211(b) Chronic Carcinogenicity Study Gasoline MTBE Vapor Condensate  
(GMVC)**

**LRRI Protocol Number: FY01-013**

**Appendix O**

**STATISTICIAN'S REPORT**

  
**Betty Skipper, PhD**  
**Director, Biostatistics**  
**University of New Mexico**

  
**Date**

## **INTRODUCTION**

Groups of 50 male/50 female CDF(F344)CrIBR rats were exposed in H2000 whole-body inhalation chambers at GMVC vapor concentrations of 2 g/m<sup>3</sup> (low level), 10 g/m<sup>3</sup> (mid level), and 20 g/m<sup>3</sup> (high level) 6 hours/day, 5 days/week for 104 weeks (520 exposure days). There was also a control group (0 g/m<sup>3</sup>). Blood was collected after approximately 12 and 18 months and at terminal sacrifice for evaluation of total and differential white blood cell counts. Animals surviving 104 weeks underwent a final sacrifice. Statistical evaluations were performed for the following endpoints:

- a. Survival as a function of sex and dose group
- b. White blood cell count (estimate) and differential white blood cell counts
- c. Histopathological lesions

## **METHODS**

### Survival Analysis

The number of days of survival was calculated for each animal in the study. Two female rats who died subsequent to accidental nose injuries early in the study were deleted from the analysis. The probability of survival was estimated by the Kaplan-Meier product-limit method using PROC LIFETEST in SAS Version 8.2. Mean numbers of survival days and time to 25% mortality were estimated for each dose group. Log-rank tests were used to test the hypothesis that there are differences among the four groups for each sex. The significance level was set at  $p = 0.05$ . All reported  $p$ -values for the survival analysis are two sided.

### Analysis of White Blood Cell Total and Differential Cell Counts

For the hematology data, medians and ranges are presented because the distributions are highly skewed for some variables. Preliminary analyses were done using the generalized estimating equation approach for longitudinal data analysis because there were three time points. For some variables these analyses showed significant interactions between time and group. Therefore, analyses were done to compare dose groups at each time point and to compare time points within each dose group. The Kruskal-Wallis test was used for these comparisons.

### Analysis of the Incidences of Microscopic Lesions

The incidences of all neoplastic and non-neoplastic lesions are given as the ratio of the number of affected animals to the number of animals with the site examined microscopically.

Three statistical evaluations were performed on the histopathology lesion incidence data:

1) Cochran-Armitage test, which tests whether the incidence of lesions shows a trend across dose groups; 2) logistic regression that takes death date into account when assessing the presence of a dose-dependent trend; and 3) the Fisher's exact test to compare incidences among the four dose groups. The two-sided significance level was set at  $p = 0.05$ . If a significant difference was detected by the Fisher's test, six possible pairwise comparisons were calculated. Using the Bonferroni correction for pairwise comparisons, each pairwise comparison would be considered significant if  $p < 0.008$ .

Fisher's exact test and the Cochran-Armitage test do not use survival information and are appropriate in situations where survival is similar among exposure group as is the case for this study. The Fisher's exact tests the null hypothesis of equality of prevalences across dose groups against the alternate hypothesis that the prevalences are not equal, while the Cochran-Armitage tests the null hypothesis of equality across doses against the alternate hypothesis of a monotonic increasing or decreasing trend. The difference in these hypothesis tests can be seen in the test of "degeneration, cytoplasmic vacuolization" for female adrenal glands. The incidences are 24%, 5%, 0%, and 28% for  $0 \text{ g/m}^3$ ,  $2 \text{ g/m}^3$ ,  $10 \text{ g/m}^3$ , and  $20 \text{ g/m}^3$ , respectively. The p-value for the Fisher's exact test is 0.006, indicating differences among the incidences. However, the p-value for the Cochran-Armitage test is 0.73, indicating no detectable upward or downward trend across the doses.

## **RESULTS**

### Survival

All groups had 50 animals except the mid-level group for females. Two animals in that group were omitted from the analysis because of nose injuries. Figures O-1 and O-2 show the survival curves for male and female animals, respectively. The differences among the groups are not statistically significant for male ( $p = 0.46$ ) or female animals ( $p = 0.07$ ). Table O-1 shows means, standard errors, and day of 25% mortality for male and female animals under each experimental condition. For the calculation of mean and standard errors of survival times, the last day of the study was used as the value of the survival time for animals that were sacrificed at the time that the study was terminated. Therefore, the means and standard errors may be underestimated because some of the animals may have lived longer if the protocol had included following them for a longer period of time. The results indicate that chronic GMVC inhalation did not shorten the lifespan of the exposed rats compared to the controls.

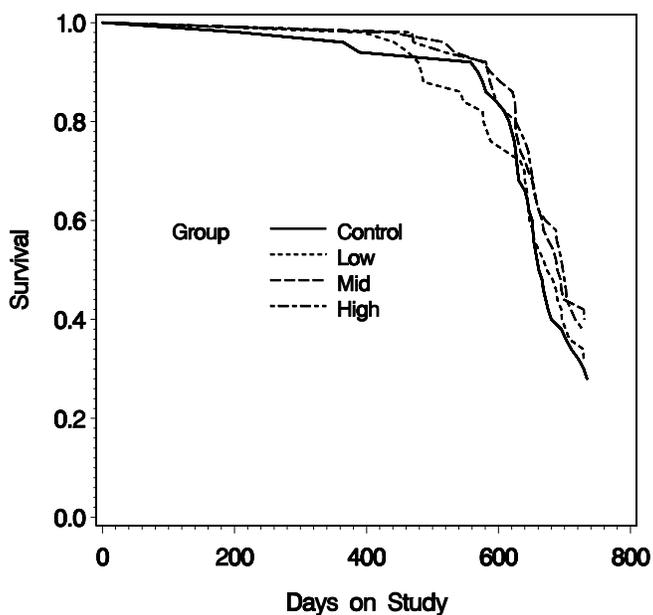


Figure O-1. Survival of Male Animals

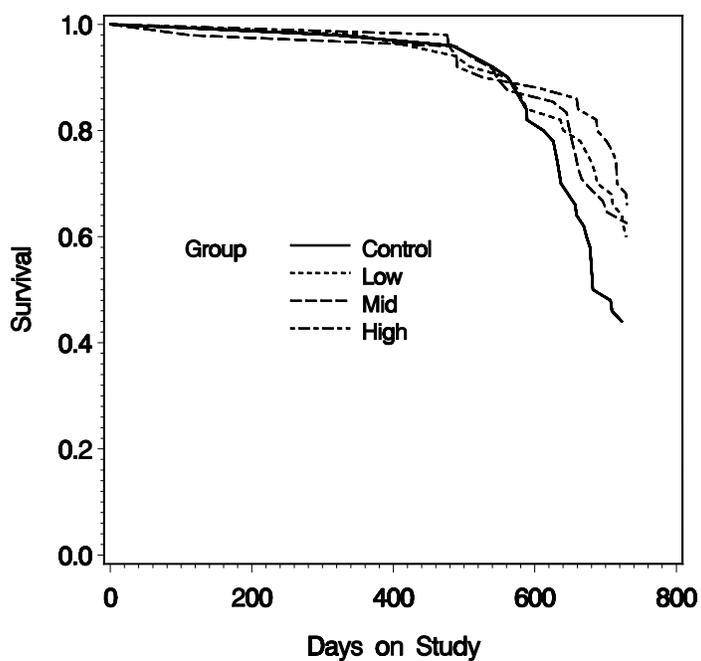


Figure O-2. Survival of Female Animals

Table O-1. Mean Survival Days and Day of 25% Mortality  
for Male and Female Rats

Exposure Group	Male		Female	
	Mean Days of Survival (SE)	Estimate Day of 25% Mortality	Mean Days of Survival (SE)	Estimated Day of 25% Mortality
0 g/m <sup>3</sup>	652.6 (14.4)	626	665.9 (11.5)	632
2 g/m <sup>3</sup>	651.6 (12.8)	633	685.5 (11.9)	680
10 g/m <sup>3</sup>	675.3 ( 9.4)	633	680.9 (15.5)	660
20 g/m <sup>3</sup>	674.1 ( 9.5)	645	697.3 (10.6)	715

Analysis of White Blood Cell Total and Differential Cell Counts

Results for female and male rats are provided in Tables O-2 and O-3, respectively. In many cases there were differences in cell numbers over time, but the differences in control and high-level animals were in the same direction. Significant differences between exposed and control groups occurred primarily in males at the 12-month sampling time.

Analysis of the Incidences of Microscopic Lesions

Results of analyses on microscopic lesions for female and male rats are provided in Tables O-4 and O-5, respectively. Significant trends with increasing GMVC exposure concentration were detected in some cases. Incidences of lesions did not always increase with increasing concentration. In several cases, although a difference was detected by the Fisher's test, the lesion incidences were not concentration dependent, leading to a lack of similarity between the results obtained using the Fisher's test and results using the Cochran-Armitage test and logistic regression. Interpretation of the significance of these differences is provided in the main report text and in the Pathologist's Report (Appendix P).

Table O-2a. Alterations in Percentages of White Blood Cell Components - Females

Variable	12 months	18 months	24 months	p-value
	Median (Range)	Median (Range)	Median (Range)	
<b>Neutrophils (%)</b>				
0 g/m <sup>3</sup>	21 (8, 40)	28 (6, 53)	32 (5, 49)	0.002
20 g/m <sup>3</sup>	26 (15, 41)	29 (16, 45)	36 (7, 71)	<0.0001
p-value	0.02	0.63	0.053	
<b>Band Neutrophils (%)</b>				
0 g/m <sup>3</sup>	0 (0, 0)	0 (0, 3)	0 (0, 1)	0.04
20 g/m <sup>3</sup>	0 (0, 2)	0 (0, 1)	0 (0, 1)	0.64
p-value	0.32	0.98	0.34	
<b>Lymphocytes (%)</b>				
0 g/m <sup>3</sup>	73 (55, 90)	69 (45, 84)	59 (41, 82)	<0.0001
20 g/m <sup>3</sup>	70 (53, 82)	66 (52, 81)	56 (25, 79)	<0.0001
p-value	0.013	0.40	0.23	
<b>Monocytes (%)</b>				
0 g/m <sup>3</sup>	4 (0, 7)	2 (0, 5)	2 (0, 5)	<0.0001
20 g/m <sup>3</sup>	4 (0, 9)	3 (0, 8)	2 (0, 7)	<0.0001
p-value	0.60	0.003	0.83	
<b>Eosinophils (%)</b>				
0 g/m <sup>3</sup>	1 (0, 6)	2 (0, 5)	1 (0, 4)	0.06
20 g/m <sup>3</sup>	2 (0, 5)	1 (0, 4)	0 (0, 3)	0.0005
p-value	0.04	0.053	0.10	
<b>Basophils (%)</b>				
0 g/m <sup>3</sup>	0 (0, 1)	0 (0, 0)	0 (0, 0)	0.003
20 g/m <sup>3</sup>	0 (0, 1)	0 (0, 0)	0 (0, 1)	0.55
p-value	0.014	1.00	0.41	
<b>Atypical Lymphocytes (%)</b>				
0 g/m <sup>3</sup>	0 (0, 0)	0 (0, 17)	8 (3, 30)	<0.0001
20 g/m <sup>3</sup>	0 (0, 0)	0 (0, 2)	4 (0, 21)	<0.0001
p-value	1.00	0.25	0.02	
<b>Blasts (%)</b>				
0 g/m <sup>3</sup>	0 (0, 0)	0 (0, 1)	0 (0, 3)	0.37
20 g/m <sup>3</sup>	0 (0, 0)	0 (0, 0)	0 (0, 3)	0.003
p-value	1.00	0.33	0.35	
<b>Nucleated RBC (#/100WBC)</b>				
0 g/m <sup>3</sup>	0 (0, 4)	2 (0, 14)	5 (1, 42)	<0.0001
20 g/m <sup>3</sup>	0 (0, 2)	2 (0, 9)	3 (0, 16)	<0.0001
p-value	0.91	0.62	0.38	

Table O-2b. Alterations in White Blood Cell Total and Differential Cell Counts - Females

Variable	12 months	18 months	24 months	p-value
	Median (Range)	Median (Range)	Median (Range)	
<b>WBC Estimate</b>				
0 g/m <sup>3</sup>	8.6 (4.4, 13.6)	4.4 (2.0, 9.2)	3.7 (1.8, 130.0)	<0.0001
20 g/m <sup>3</sup>	8.8 (4.8, 12.0)	4.6 (1.8, 8.2)	3.0 (1.4, 40.0)	<0.0001
p-value	0.58	0.77	0.14	
<b>Absolute Neutrophils</b>				
0 g/m <sup>3</sup>	2.0 (0.4, 5.0)	1.2 (0.3, 2.8)	1.1 (0.6, 6.5)	<0.0001
20 g/m <sup>3</sup>	2.1 (1.1, 4.3)	1.3 (0.4, 3.3)	1.1 (0.4, 2.9)	<0.0001
p-value	0.27	0.91	0.50	
<b>Absolute Band Neutrophils</b>				
0 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.1)	0.0 (0.0, 1.3)	0.014
20 g/m <sup>3</sup>	0.0 (0.0, 0.2)	0.0 (0.0, 0.1)	0.0 (0.0, 0.0)	0.66
p-value	0.32	0.58	0.29	
<b>Absolute Lymphocytes</b>				
0 g/m <sup>3</sup>	6.3 (4.0, 10.5)	3.1 (1.3, 6.9)	1.8 (0.8, 97.5)	<0.0001
20 g/m <sup>3</sup>	5.8 (3.3, 8.1)	3.1 (1.3, 5.1)	1.3 (0.7, 31.6)	<0.0001
p-value	0.15	0.87	0.07	
<b>Absolute Monocytes</b>				
0 g/m <sup>3</sup>	0.3 (0.0, 0.8)	0.1 (0.0, 0.3)	0.1 (0.0, 0.8)	<0.0001
20 g/m <sup>3</sup>	0.3 (0.0, 0.9)	0.1 (0.0, 0.5)	0.0 (0.0, 0.6)	<0.0001
p-value	0.93	0.02	0.42	
<b>Absolute Eosinophils</b>				
0 g/m <sup>3</sup>	0.1 (0.0, 0.5)	0.1 (0.0, 0.3)	0.0 (0.0, 0.2)	0.0008
20 g/m <sup>3</sup>	0.1 (0.0, 0.5)	0.0 (0.0, 0.2)	0.0 (0.0, 0.1)	<0.0001
p-value	0.12	0.048	0.09	
<b>Absolute Basophils</b>				
0 g/m <sup>3</sup>	0.0 (0.0, 0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.004
20 g/m <sup>3</sup>	0.0 (0.0, 0.1)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.56
p-value	0.015	1.00	0.41	
<b>Absolute Atypical Lymphocytes</b>				
0 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.3)	0.3 (0.1, 20.8)	<0.0001
20 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.1)	0.1 (0.0, 4.4)	<0.0001
p-value	1.00	0.16	0.007	
<b>Absolute Blasts</b>				
0 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 3.9)	0.12
20 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 1.2)	0.003
p-value	1.00	1.00	0.38	

Table O-3a. Alterations in Percentages of White Blood Cell Components - Males

Variable	12 months	18 months	24 months	p-value
	Median (Range)	Median (Range)	Median (Range)	
<b>Neutrophils (%)</b>				
0 g/m <sup>3</sup>	30 (16, 47)	33 (12, 60)	54 (4, 63)	0.004
20 g/m <sup>3</sup>	40 (22, 57)	36 (17, 71)	45 (5, 64)	0.46
p-value	<0.0001	0.02	0.25	
<b>Band Neutrophils (%)</b>				
0 g/m <sup>3</sup>	0 (0, 1)	0 (0, 1)	0 (0, 0)	0.40
20 g/m <sup>3</sup>	0 (0, 2)	0 (0, 1)	0 (0, 0)	0.01
p-value	0.02	0.31	1.00	
<b>Lymphocytes (%)</b>				
0 g/m <sup>3</sup>	65 (45, 82)	61 (30, 80)	40 (2, 75)	0.0001
20 g/m <sup>3</sup>	55 (37, 70)	59 (27, 76)	47 (27, 85)	0.13
p-value	<0.0001	0.03	0.13	
<b>Monocytes (%)</b>				
0 g/m <sup>3</sup>	4 (0, 8)	4 (1, 9)	4 (1, 6)	0.28
20 g/m <sup>3</sup>	3 (1, 9)	4 (0, 9)	1 (0, 4)	<0.0001
p-value	0.78	0.40	0.002	
<b>Eosinophils (%)</b>				
0 g/m <sup>3</sup>	1 (0, 5)	2 (0, 6)	1 (0, 5)	0.003
20 g/m <sup>3</sup>	2 (0, 6)	2 (0, 6)	1 (0, 3)	0.001
p-value	0.10	0.98	0.97	
<b>Basophils (%)</b>				
0 g/m <sup>3</sup>	0 (0, 1)	0 (0, 1)	0 (0, 0)	0.66
20 g/m <sup>3</sup>	0 (0, 1)	0 (0, 0)	0 (0, 0)	0.02
p-value	0.16	0.32	1.00	
<b>Atypical Lymphocytes (%)</b>				
0 g/m <sup>3</sup>	0 (0, 0)	0 (0, 0)	6 (0, 19)	<0.0001
20 g/m <sup>3</sup>	0 (0, 0)	0 (0, 0)	6 (2, 11)	<0.0001
p-value	1.00	1.00	0.87	
<b>Blasts (%)</b>				
0 g/m <sup>3</sup>	0 (0, 0)	0 (0, 0)	0 (0, 0)	1.00
20 g/m <sup>3</sup>	0 (0, 0)	0 (0, 0)	0 (0, 3)	0.0004
p-value	1.00	1.00	0.12	
<b>Nucleated RBC (#/100WBC)</b>				
0 g/m <sup>3</sup>	0 (0, 2)	1 (0, 10)	2 (0, 7)	<0.0001
20 g/m <sup>3</sup>	0 (0, 2)	1 (0, 6)	4 (0, 12)	<0.0001
p-value	0.63	0.94	0.08	

Table O-3b. Alterations in White Blood Cell Total and Differential Cell Counts - Males

Variable	12 months	18 months	24 months	p-value
	Median (Range)	Median (Range)	Median (Range)	
<b>WBC Estimate</b>				
0 g/m <sup>3</sup>	10.0 (4.0, 20.0)	12.0 (6.8, 29.6)	3.7 (2.0, 68.8)	0.0001
20 g/m <sup>3</sup>	16.8 (8.8, 29.6)	12.4 (4.4, 36.4)	3.6 (1.6, 362.0)	<0.0001
p-value	<0.0001	0.50	0.94	
<b>Absolute Neutrophils</b>				
0 g/m <sup>3</sup>	3.3 (1.0, 8.9)	4.1 (1.2, 17.8)	1.9 (1.1, 5.4)	0.0002
20 g/m <sup>3</sup>	6.5 (2.5, 13.2)	3.8 (1.6, 24.0)	1.8 (0.7, 25.3)	<0.0001
p-value	<0.0001	0.60	0.58	
<b>Absolute Band Neutrophils</b>				
0 g/m <sup>3</sup>	0.0 (0.0, 0.1)	0.0 (0.0, 0.2)	0.0 (0.0, 0.0)	0.39
20 g/m <sup>3</sup>	0.0 (0.0, 0.4)	0.0 (0.0, 0.1)	0.0 (0.0, 0.0)	0.014
p-value	0.02	0.29	1.00	
<b>Absolute Lymphocytes</b>				
0 g/m <sup>3</sup>	6.3 (2.7, 12.2)	7.3 (4.1, 22.7)	1.6 (0.6, 51.6)	0.0005
20 g/m <sup>3</sup>	9.2 (4.4, 15.3)	6.2 (2.3, 15.4)	1.4 (0.8, 307.7)	<0.0001
p-value	<0.0001	0.13	0.48	
<b>Absolute Monocytes</b>				
0 g/m <sup>3</sup>	0.3 (0.0, 1.0)	0.5 (0.1, 2.7)	0.2 (0.0, 1.4)	0.002
20 g/m <sup>3</sup>	0.6 (0.1, 1.8)	0.4 (0.0, 1.9)	0.0 (0.0, 0.4)	<0.0001
p-value	<0.0001	0.47	0.005	
<b>Absolute Eosinophils</b>				
0 g/m <sup>3</sup>	0.1 (0.0, 0.7)	0.3 (0.0, 0.9)	0.0 (0.0, 0.2)	<0.0001
20 g/m <sup>3</sup>	0.3 (0.0, 1.3)	0.3 (0.0, 0.9)	0.0 (0.0, 0.1)	<0.0001
p-value	0.0003	0.84	0.75	
<b>Absolute Basophils</b>				
0 g/m <sup>3</sup>	0.0 (0.0, 0.2)	0.0 (0.0, 0.1)	0.0 (0.0, 0.0)	0.66
20 g/m <sup>3</sup>	0.0 (0.0, 0.2)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.016
p-value	0.15	0.32	1.00	
<b>Absolute Atypical Lymphocytes</b>				
0 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.2 (0.0, 13.1)	<0.0001
20 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.2 (0.1, 25.3)	<0.0001
p-value	1.00	1.00	0.55	
<b>Absolute Blasts</b>				
0 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	1.00
20 g/m <sup>3</sup>	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 3.6)	0.0004
p-value	1.00	1.00	0.13	

Table O-4. Statistical Evaluation of Microscopic Lesions in Females

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Adrenal glands					
B-Pheochromocytoma, benign	1/49 ( 2%)	1/20 ( 5%)	2/21 ( 10%)	0.88	0.91
Cyst	0/49 ( 0%)	0/20 ( 0%)	1/21 ( 5%)	0.28	0.33
Degeneration, cytoplasmic vacuolization	12/49 ( 24%)	1/20 ( 5%)	0/21 ( 0%)	0.73	0.77
Hyperplasia, cortical, focal	2/49 ( 4%)	0/20 ( 0%)	0/21 ( 0%)	0.49	0.46
Hyperplasia, focal	1/49 ( 2%)	0/20 ( 0%)	2/21 ( 10%)	0.39	0.39
M-Carcinoma, metastatic	0/49 ( 0%)	0/20 ( 0%)	0/21 ( 0%)	0.25	.
M-Leukemia, mononuclear	3/49 ( 6%)	1/20 ( 5%)	0/21 ( 0%)	0.86	0.87
Necrosis	1/49 ( 2%)	0/20 ( 0%)	0/21 ( 0%)	0.24	.
Thrombus	1/49 ( 2%)	0/20 ( 0%)	0/21 ( 0%)	0.24	0.64
Aorta					
N-Leukemia, mononuclear - invasive involvement	1/49 ( 2%)	0/20 ( 0%)	0/20 ( 0%)	0.24	0.64
Bone, femur					
New bone formation, endosteal	0/50 ( 0%)	0/20 ( 0%)	0/19 ( 0%)	0.25	1.00
Bone, other					
Fracture	0/0 ( .%)	0/0 ( .%)	1/1 ( 100%)	.	.
Bone, rib					
M-Osteosarcoma	0/0 ( .%)	0/0 ( .%)	0/0 ( .%)	.	.
Bone, vertebrae					
N-Leukemia, mononuclear	1/1 ( 100%)	0/0 ( .%)	0/0 ( .%)	.	.
Brain					
Compression	2/50 ( 4%)	8/25 ( 32%)	9/25 ( 36%)	0.07	0.16
Hemorrhage	1/50 ( 2%)	1/25 ( 4%)	0/25 ( 0%)	0.26	0.31
Inflammation, chronic	0/50 ( 0%)	0/25 ( 0%)	0/25 ( 0%)	0.23	.
M-Astrocytoma, malignant	0/50 ( 0%)	1/25 ( 4%)	0/25 ( 0%)	0.69	0.70
Metaplasia, osseous, meninges	0/50 ( 0%)	0/25 ( 0%)	0/25 ( 0%)	0.23	.
Necrosis	1/50 ( 2%)	0/25 ( 0%)	0/25 ( 0%)	0.23	1.00

<sup>1</sup>Pairwise Fisher's exact tests: p=0.09 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.013 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.82 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.49 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.051 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.007 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

<sup>2</sup>Pairwise Fisher's exact tests: p=0.002 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.0005 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.051 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=1.00 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.24 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.10 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-4. Statistical Evaluation of Microscopic Lesions in Females (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Bronchial (TBLN)					
Hemorrhage	1/48 ( 2%)	3/19 ( 16%)	0/20 ( 0%)	0.40	0.42
Inflammation, mixed	0/48 ( 0%)	0/19 ( 0%)	1/20 ( 5%)	0.70	0.87
N-Leukemia, mononuclear	9/48 ( 19%)	3/19 ( 16%)	7/20 ( 35%)	0.12	0.12
Cecum					
N-Leukemia, mononuclear	2/49 ( 4%)	1/20 ( 5%)	0/20 ( 0%)	0.11	0.18
Cervix					
B-Polyp, endometrial stromal	0/2 ( 0%)	0/5 ( 0%)	0/3 ( 0%)	0.08	.
M-Leiomyosarcoma	0/2 ( 0%)	1/5 ( 20%)	0/3 ( 0%)	0.65	.
N-Adenocarcinoma, endometrial	0/2 ( 0%)	1/5 ( 20%)	0/3 ( 0%)	0.65	0.91
Clitoral gland					
B-Adenoma	0/1 ( 0%)	0/0 ( .%)	1/3 ( 33%)	0.50	1.00
M-Carcinoma, squamous cell	1/1 (100%)	0/0 ( .%)	0/3 ( 0%)	0.046	0.25
N-Adenocarcinoma	0/1 ( 0%)	0/0 ( .%)	2/3 ( 67%)	0.25	1.00
Duodenum					
Inflammation, acute	0/50 ( 0%)	1/20 ( 5%)	0/20 ( 0%)	0.70	0.61
Eyes/optic nerve					
Atrophy	1/50 ( 2%)	1/22 ( 5%)	0/24 ( 0%)	0.70	0.91
Atrophy, retinal, unilateral	0/50 ( 0%)	2/22 ( 9%)	1/24 ( 4%)	0.81	0.78
Cataract	1/50 ( 2%)	3/22 ( 14%)	1/24 ( 4%)	0.89	0.87
Metaplasia, osseous, scleral	1/50 ( 2%)	0/22 ( 0%)	0/24 ( 0%)	0.23	.
Mineralization, corneal stromal	4/50 ( 8%)	0/22 ( 0%)	0/24 ( 0%)	0.99	0.97
Mineralization, scleral	2/50 ( 4%)	2/22 ( 9%)	2/24 ( 8%)	0.45	0.55
Neovascularization, corneal	1/50 ( 2%)	0/22 ( 0%)	0/24 ( 0%)	0.50	0.71
Harderian gland					
Pigment	0/0 ( .%)	0/0 ( .%)	1/1 (100%)	.	.
Heart					
Degeneration, myocyte	3/50 ( 6%)	0/20 ( 0%)	0/20 ( 0%)	1.00	0.59
Fibrosis	1/50 ( 2%)	0/20 ( 0%)	0/20 ( 0%)	0.25	.
Inflammation, focal, chronic	24/50 ( 48%)	7/20 ( 35%)	8/20 ( 40%)	0.65	0.73
M-Leukemia, mononuclear	5/50 ( 10%)	2/20 ( 10%)	0/20 ( 0%)	0.14	0.16
Thrombus	1/50 ( 2%)	0/20 ( 0%)	0/20 ( 0%)	0.25	.

<sup>3</sup>Pairwise Fisher's exact tests: p=1.00 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.21 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.051 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.27 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.13 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.002 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

<sup>4</sup>Pairwise Fisher's exact tests: p=0.09 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.32 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.60 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.09 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.32 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-4. Statistical Evaluation of Microscopic Lesions in Females (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Ileum					
N-Leukemia, mononuclear	1/50 ( 2%)	0/20 ( 0%)	0/19 ( 0%)	1/50 ( 2%)	1.00
Iliac LN					
N-Leukemia, mononuclear	2/2 (100%)	2/2 (100%)	2/2 (100%)	0/0 ( .%)	.
Kidneys					
Atrophy	0/50 ( 0%)	0/20 ( 0%)	0/21 ( 0%)	1/50 ( 2%)	1.00
Cyst	1/50 ( 2%)	0/20 ( 0%)	0/21 ( 0%)	3/50 ( 6%)	0.52
Degeneration, hyaline droplet	0/50 ( 0%)	0/20 ( 0%)	0/21 ( 0%)	1/50 ( 2%)	1.00
Dilatation	0/50 ( 0%)	0/20 ( 0%)	0/21 ( 0%)	1/50 ( 2%)	1.00
Infarct	0/50 ( 0%)	0/20 ( 0%)	0/21 ( 0%)	1/50 ( 2%)	1.00
M-Leukemia, mononuclear	1/50 ( 2%)	1/20 ( 5%)	1/21 ( 5%)	2/50 ( 4%)	0.86
N-Sarcoma, histiocytic	0/50 ( 0%)	0/20 ( 0%)	1/21 ( 5%)	0/50 ( 0%)	0.29
Nephropathy, chronic	42/50 ( 84%)	17/20 ( 85%)	15/21 ( 71%)	43/50 ( 86%)	0.51
Pigment accumulation, tubular epithelium	0/50 ( 0%)	2/20 ( 10%)	0/21 ( 0%)	2/50 ( 4%)	0.13
Larynx					
Hyperplasia	17/50 ( 34%)	10/50 ( 20%)	5/50 ( 10%)	15/50 ( 30%)	0.018 <sup>5</sup>
Inflammation, acute	2/50 ( 4%)	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.62
Inflammation, chronic	8/50 ( 16%)	1/50 ( 2%)	6/50 ( 12%)	7/50 ( 14%)	0.08
Inflammation, mixed	28/50 ( 56%)	35/50 ( 70%)	23/50 ( 46%)	33/50 ( 66%)	0.07
Metaplasia, squamous	5/50 ( 10%)	10/50 ( 20%)	10/50 ( 20%)	9/50 ( 18%)	0.49

<sup>5</sup>Pairwise Fisher's exact tests: p=0.18 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.007 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.83 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.26 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.36 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.02 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-4. Statistical Evaluation of Microscopic Lesions in Females (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
<b>Liver</b>					
Angiectasis	1/50 ( 2%)	0/28 ( 0%)	0/22 ( 0%)	1/50 ( 2%)	0.98
B-Adenoma, hepatocellular	1/50 ( 2%)	0/28 ( 0%)	0/22 ( 0%)	0/50 ( 0%)	0.24
Congestion	1/50 ( 2%)	0/28 ( 0%)	1/22 ( 5%)	0/50 ( 0%)	0.59
Fatty Change	0/50 ( 0%)	1/28 ( 4%)	2/22 ( 9%)	3/50 ( 6%)	0.09
Foci of cellular alteration, basophilic	1/50 ( 2%)	0/28 ( 0%)	0/22 ( 0%)	1/50 ( 2%)	0.98
Hepatodiaphragmatic nodule	0/50 ( 0%)	5/28 ( 18%)	0/22 ( 0%)	3/50 ( 6%)	0.53
Hyperplasia, biliary	35/50 ( 70%)	16/28 ( 57%)	17/22 ( 77%)	24/50 ( 48%)	0.059
Hyperplasia, hepatocellular, regenerative	1/50 ( 2%)	1/28 ( 4%)	1/22 ( 5%)	1/50 ( 2%)	0.97
Inflammation, acute	1/50 ( 2%)	0/28 ( 0%)	0/22 ( 0%)	0/50 ( 0%)	0.24
Inflammation, chronic	13/50 ( 26%)	5/28 ( 18%)	3/22 ( 14%)	17/50 ( 34%)	0.39
M-Leukemia, mononuclear	27/50 ( 54%)	17/28 ( 61%)	10/22 ( 45%)	23/50 ( 46%)	0.30
M-Sarcoma. histiocytic	0/50 ( 0%)	0/28 ( 0%)	1/22 ( 5%)	1/50 ( 2%)	0.25
Necrosis	3/50 ( 6%)	3/28 ( 11%)	1/22 ( 5%)	5/50 ( 10%)	0.59
Thrombus	0/50 ( 0%)	0/28 ( 0%)	0/22 ( 0%)	1/50 ( 2%)	0.23
Vacuolization cytoplasmic	5/50 ( 10%)	1/28 ( 4%)	1/22 ( 5%)	1/50 ( 2%)	0.09
<b>Lungs</b>					
Alveolar histiocytosis	9/50 ( 18%)	3/50 ( 6%)	3/50 ( 6%)	9/50 ( 18%)	1.00
Congestion	1/50 ( 2%)	0/50 ( 0%)	2/50 ( 4%)	1/50 ( 2%)	0.65
Fibrosis, focal	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.65
Hemorrhage	5/50 ( 10%)	1/50 ( 2%)	1/50 ( 2%)	3/50 ( 6%)	0.38
Hyperplasia, alveolar epithelial, focal	7/50 ( 14%)	1/50 ( 2%)	1/50 ( 2%)	1/50 ( 2%)	0.009
Inflammation, acute	1/50 ( 2%)	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.20
Inflammation, granulomatous	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.65
Inflammation, mixed	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.65
N-Carcinoma, metastatic	0/50 ( 0%)	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	0.18
N-Leukemia, mononuclear - capillary involvement	22/50 ( 44%)	16/50 ( 32%)	12/50 ( 24%)	19/50 ( 38%)	0.39
N-Leukemia, mononuclear - invasive involvement	3/50 ( 6%)	1/50 ( 2%)	2/50 ( 4%)	1/50 ( 2%)	0.39
N-Sarcoma, histiocytic	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	1/50 ( 2%)	0.20
<b>Lymph node other</b>					
Hemorrhage	1/3 ( 33%)	0/1 ( 0%)	0/3 ( 0%)	0/1 ( 0%)	0.22
Infiltration, histiocytic	1/3 ( 33%)	0/1 ( 0%)	0/3 ( 0%)	0/1 ( 0%)	0.22
N-Leukemia, mononuclear	2/3 ( 67%)	1/1 ( 100%)	2/3 ( 67%)	1/1 ( 100%)	0.71

<sup>6</sup>Pairwise Fisher's exact tests: p=0.005 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.24 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.06 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.13 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.55 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.  
<sup>7</sup>Pairwise Fisher's exact tests: p=0.32 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.58 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.04 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.23 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.49 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.04 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.  
<sup>8</sup>Pairwise Fisher's exact tests: p=0.06 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.06 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.06 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=1.00 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=1.00 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-4. Statistical Evaluation of Microscopic Lesions in Females (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Mammary gland					
B-Fibroadenoma	0/49 ( 0%)	3/20 ( 15%)	2/22 ( 9%)	0.07	0.18
B-Fibroma	1/49 ( 2%)	2/20 ( 10%)	1/22 ( 5%)	0.44	0.38
Ectasia	3/49 ( 6%)	0/20 ( 0%)	0/22 ( 0%)	0.24	0.16
Hyperplasia, lobular	1/49 ( 2%)	0/20 ( 0%)	1/22 ( 5%)	0.41	0.53
M-Adenocarcinoma	0/49 ( 0%)	1/20 ( 5%)	1/22 ( 5%)	0.99	0.09
M-Adenocarcinoma arising in fibroadenoma	1/49 ( 2%)	0/20 ( 0%)	0/22 ( 0%)	0.24	1.00
Mandibular LN					
Hemorrhage	0/44 ( 0%)	1/19 ( 5%)	0/21 ( 0%)	0.67	0.15
N-Leukemia, mononuclear	12/44 ( 27%)	6/19 ( 32%)	5/21 ( 24%)	0.043	0.12
Mediastinal LN					
B-Thymoma	0/50 ( 0%)	0/20 ( 0%)	1/20 ( 5%)	0.68	0.29
Hemorrhage	4/50 ( 8%)	1/20 ( 5%)	1/20 ( 5%)	0.20	0.62
Infiltration, histiocytic	0/50 ( 0%)	0/20 ( 0%)	0/20 ( 0%)	0.23	0.64
M-Carcinoma, metastatic	0/50 ( 0%)	0/20 ( 0%)	0/20 ( 0%)	0.23	0.64
N-Leukemia, mononuclear	12/50 ( 24%)	5/20 ( 25%)	5/20 ( 25%)	0.11	0.24
N-Sarcoma, histiocytic	0/50 ( 0%)	0/20 ( 0%)	1/20 ( 5%)	0.68	0.29
Pigmentation	0/50 ( 0%)	0/20 ( 0%)	0/20 ( 0%)	0.23	0.64
Mediastinum					
N-Leukemia, mononuclear	1/1 ( 100%)	0/0 ( .%)	0/0 ( .%)	.	.
Mesenteric LN					
Hemorrhage	1/50 ( 2%)	0/19 ( 0%)	1/20 ( 5%)	0.58	0.48
Inflammation, chronic	1/50 ( 2%)	0/19 ( 0%)	1/20 ( 5%)	0.58	0.48
N-Leukemia, mononuclear	13/50 ( 26%)	3/19 ( 16%)	7/20 ( 35%)	0.056	0.06
N-Sarcoma, histiocytic	0/50 ( 0%)	0/19 ( 0%)	0/20 ( 0%)	0.25	1.00
Mesentery					
M-Carcinoma, metastatic	0/1 ( 0%)	0/0 ( .%)	0/0 ( .%)	0.16	1.00
Splenic tissue, "accessory"	1/1 ( 100%)	0/0 ( .%)	0/0 ( .%)	0.16	1.00
Muscle, skeletal					
N-Sarcoma, histiocytic	0/50 ( 0%)	0/20 ( 0%)	0/20 ( 0%)	0.25	1.00

<sup>9</sup>Pairwise Fisher's exact tests: p=0.02 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.09 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.03 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.66 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.69 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=1.00 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.  
<sup>10</sup>Pairwise Fisher's exact tests: p=0.53 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.56 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.03 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.27 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.38 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.009 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-4. Statistical Evaluation of Microscopic Lesions in Females (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
<b>Nose/Turbinates 1</b>					
Degeneration, hyaline - respiratory epithelium	3/50 ( 6%)	7/50 ( 14%)	6/49 ( 12%)	0.67	0.70
Hyperplasia - respiratory epithelium	0/50 ( 0%)	1/50 ( 2%)	2/49 ( 4%)	0.16	0.19
Inflammation - nasolacrimal duct	21/50 ( 42%)	15/50 ( 30%)	20/49 ( 41%)	0.59	0.60
Inflammation - respiratory epithelium	1/50 ( 2%)	0/50 ( 0%)	0/49 ( 0%)	1.00	0.85
Inflammation, mixed	5/50 ( 10%)	5/50 ( 10%)	4/49 ( 8%)	0.67	0.69
<b>Nose/Turbinates 2</b>					
Degeneration, hyaline - olfactory epithelium	4/50 ( 8%)	5/50 ( 10%)	6/50 ( 12%)	0.07	0.07
Degeneration, hyaline - respiratory epithelium	0/50 ( 0%)	1/50 ( 2%)	7/50 ( 14%)	0.003	0.008
Hyperplasia - respiratory epithelium	0/50 ( 0%)	2/50 ( 4%)	0/50 ( 0%)	0.79	0.79
Inflammation, mixed	3/50 ( 6%)	4/50 ( 8%)	2/50 ( 4%)	0.49	0.49
Metaplasia, secretory - olfactory epithelium	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.18	1.00
Metaplasia, squamous - olfactory epithelium	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	0.65	0.66
<b>Nose/Turbinates 3</b>					
Degeneration - olfactory epithelium	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.65	0.57
Degeneration - respiratory epithelium	0/50 ( 0%)	2/50 ( 4%)	0/50 ( 0%)	0.79	0.81
Degeneration, hyaline - olfactory epithelium	4/50 ( 8%)	2/50 ( 4%)	10/50 ( 20%)	0.052	0.058
Inflammation, mixed	1/50 ( 2%)	3/50 ( 6%)	1/50 ( 2%)	0.31	0.29
<b>Nose/Turbinates 4</b>					
Degeneration - olfactory epithelium	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.65	1.00
Degeneration, hyaline - olfactory epithelium	3/50 ( 6%)	0/50 ( 0%)	0/50 ( 0%)	1.00	0.79
Inflammation, mixed	1/50 ( 2%)	1/50 ( 2%)	0/50 ( 0%)	0.20	0.26
<b>Ovaries</b>					
Congestion	0/49 ( 0%)	0/21 ( 0%)	1/23 ( 4%)	0.70	0.69
Cyst, bursa	0/49 ( 0%)	0/21 ( 0%)	1/23 ( 4%)	0.27	0.51
Cyst, epithelial	1/49 ( 2%)	1/21 ( 5%)	0/23 ( 0%)	0.26	0.30
Cyst, follicular	0/49 ( 0%)	0/21 ( 0%)	1/23 ( 4%)	0.70	0.89
Cyst, rete ovarii	0/49 ( 0%)	0/21 ( 0%)	1/23 ( 4%)	0.70	0.31
Hemorrhage	1/49 ( 2%)	0/21 ( 0%)	0/23 ( 0%)	0.23	0.31
M-Leukemia, mononuclear	1/49 ( 2%)	1/21 ( 5%)	1/23 ( 4%)	0.98	0.65
N-Sarcoma, histiocytic	0/49 ( 0%)	0/21 ( 0%)	0/23 ( 0%)	0.24	0.98
Necrosis, mesenteric fat	0/49 ( 0%)	1/21 ( 5%)	0/23 ( 0%)	0.68	0.15
<b>Pancreas</b>					
Fibrosis	0/50 ( 0%)	0/18 ( 0%)	0/20 ( 0%)	0.25	1.00
M-Leukemia, mononuclear	0/50 ( 0%)	1/18 ( 6%)	0/20 ( 0%)	0.70	0.69

<sup>11</sup>Pairwise Fisher's exact tests: p=0.49 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.012 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.03 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.06 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.11 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=1.00 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-4. Statistical Evaluation of Microscopic Lesions in Females (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Pancreatic LN					
N-Leukemia, mononuclear	2/2 (100%)	1/1 (100%)	2/2 (100%)	1/1 (100%)	.
Parathyroid					
B-Adenoma	1/47 ( 2%)	0/20 ( 0%)	0/20 ( 0%)	0/50 ( 0%)	0.64
Hyperplasia, focal	1/47 ( 2%)	0/20 ( 0%)	0/20 ( 0%)	0/50 ( 0%)	0.64
Pituitary gland					
Angiectasis	9/50 ( 18%)	1/32 ( 3%)	3/34 ( 9%)	6/50 ( 12%)	0.41
B-Adenoma, pars distalis	7/50 ( 14%)	13/32 ( 41%)	14/34 ( 41%)	11/50 ( 22%)	0.37
B-Adenoma, pars intermedia	0/50 ( 0%)	0/32 ( 0%)	1/34 ( 3%)	0/50 ( 0%)	0.68
Cyst	24/50 ( 48%)	9/32 ( 28%)	10/34 ( 29%)	12/50 ( 24%)	0.011
Degeneration	1/50 ( 2%)	0/32 ( 0%)	0/34 ( 0%)	0/50 ( 0%)	1.00
Hemorrhage	5/50 ( 10%)	0/32 ( 0%)	0/34 ( 0%)	10/50 ( 20%)	0.10
Hyperplasia, focal	8/50 ( 16%)	3/32 ( 9%)	8/34 ( 24%)	4/50 ( 8%)	0.50
M-Carcinoma	0/50 ( 0%)	1/32 ( 3%)	0/34 ( 0%)	0/50 ( 0%)	0.67
M-Leukemia, mononuclear	0/50 ( 0%)	1/32 ( 3%)	0/34 ( 0%)	1/50 ( 2%)	0.56
Necrosis	0/50 ( 0%)	0/32 ( 0%)	0/34 ( 0%)	1/50 ( 2%)	0.21
Popliteal LN					
N-Leukemia, mononuclear	1/1 (100%)	1/1 (100%)	0/0 ( .%)	0/0 ( .%)	.
Rectum					
Metaplasia, squamous	0/50 ( 0%)	1/20 ( 5%)	0/20 ( 0%)	0/50 ( 0%)	0.70
Salivary gland					
M-Leukemia, mononuclear	2/50 ( 4%)	0/20 ( 0%)	0/20 ( 0%)	1/50 ( 2%)	0.50
Skin					
Cyst, epithelial inclusion	0/50 ( 0%)	1/19 ( 5%)	0/20 ( 0%)	0/49 ( 0%)	0.70
Fibrosis	0/50 ( 0%)	0/19 ( 0%)	1/20 ( 5%)	0/49 ( 0%)	0.69
Inflammation, mixed	0/50 ( 0%)	0/19 ( 0%)	1/20 ( 5%)	0/49 ( 0%)	0.69
Spinal cord					
Degeneration, white matter	1/50 ( 2%)	0/20 ( 0%)	0/19 ( 0%)	1/50 ( 2%)	1.00
Hemorrhage	1/50 ( 2%)	0/20 ( 0%)	1/19 ( 5%)	0/50 ( 0%)	0.59
Necrosis, neuronal	0/50 ( 0%)	0/20 ( 0%)	0/19 ( 0%)	1/50 ( 2%)	0.25

<sup>12</sup>Pairwise Fisher's exact tests: p=0.009 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.009 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.44 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=1.00 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.09 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.09 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

<sup>13</sup>Pairwise Fisher's exact tests: p=0.15 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.08 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.26 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.005 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.005 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-4. Statistical Evaluation of Microscopic Lesions in Females (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
<b>Spleen</b>			20		
Fibrosis	3/50 ( 6%)	0/22 ( 0%)	1/24 ( 4%)	0.11	0.16
Hemorrhage	0/50 ( 0%)	0/22 ( 0%)	0/24 ( 0%)	0.24	.
M-Leukemia, mononuclear	27/50 ( 54%)	12/22 ( 55%)	11/24 ( 46%)	0.36	0.33
N-Sarcoma, histiocytic	0/50 ( 0%)	0/22 ( 0%)	1/24 ( 4%)	0.70	0.87
Necrosis	1/50 ( 2%)	1/22 ( 5%)	0/24 ( 0%)	0.70	0.82
				0.70	0.82
<b>Stomach</b>					
Inflammation, mixed	0/50 ( 0%)	1/20 ( 5%)	0/20 ( 0%)	0.70	0.69
M-Carcinoma, metastatic	0/50 ( 0%)	0/20 ( 0%)	0/20 ( 0%)	0.25	.
M-Leukemia, mononuclear	1/50 ( 2%)	1/20 ( 5%)	1/20 ( 5%)	0.50	0.50
Ulcer	0/50 ( 0%)	1/20 ( 5%)	0/20 ( 0%)	0.70	0.69
				0.70	0.69
<b>Tail</b>					
Hyperplasia/hyperkeratosis	0/0 ( .%)	0/0 ( .%)	1/1 (100%)	.	.
Inflammation, acute	0/0 ( .%)	0/0 ( .%)	1/1 (100%)	0.16	.
Inflammation, mixed	0/0 ( .%)	0/0 ( .%)	0/1 ( 0%)	0.16	.
				0.16	0.16
<b>Thyroid glands</b>					
B-Adenoma, C-cell	1/50 ( 2%)	2/22 ( 9%)	3/22 ( 14%)	0.57	0.91
B-Adenoma, follicular cell	0/50 ( 0%)	0/22 ( 0%)	0/22 ( 0%)	0.10	.
Cyst, follicular	0/50 ( 0%)	0/22 ( 0%)	1/22 ( 5%)	0.70	0.70
Hyperplasia, C-cell, focal	3/50 ( 6%)	4/22 ( 18%)	1/22 ( 5%)	0.51	0.66
Hyperplasia, follicular cell	1/50 ( 2%)	0/22 ( 0%)	0/22 ( 0%)	0.24	.
M-Carcinoma, C-cell	1/50 ( 2%)	0/22 ( 0%)	0/22 ( 0%)	0.24	.
M-Carcinoma, follicular cell	1/50 ( 2%)	0/22 ( 0%)	1/22 ( 5%)	0.58	0.55
M-Leukemia, mononuclear	0/50 ( 0%)	0/22 ( 0%)	0/22 ( 0%)	0.24	.
				0.24	0.24
<b>Trachea</b>					
Hyperplasia	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	0.65	0.66
Inflammation, acute	2/50 ( 4%)	0/50 ( 0%)	0/50 ( 0%)	0.057	.
Inflammation, mixed	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	1.00	0.99
N-Leukemia, mononuclear	0/50 ( 0%)	1/50 ( 2%)	1/50 ( 2%)	1.00	1.00
				1.00	1.00
<b>Urinary bladder</b>					
Hemorrhage	1/50 ( 2%)	0/20 ( 0%)	0/19 ( 0%)	0.25	.
Hyperplasia, papillary	1/50 ( 2%)	0/20 ( 0%)	0/19 ( 0%)	0.25	.
Inflammation, chronic	2/50 ( 4%)	0/20 ( 0%)	0/19 ( 0%)	0.59	0.66
M-Leukemia, mononuclear	1/50 ( 2%)	0/20 ( 0%)	1/19 ( 5%)	0.59	0.58
				0.59	0.58

Table O-4. Statistical Evaluation of Microscopic Lesions in Females (Concluded)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Uterus			20		
Angiectasis	0/50 ( 0%)	0/24 ( 0%)	1/31 ( 3%)	0/50 ( 0%)	0.85
B-Adenoma, endometrial	0/50 ( 0%)	1/24 ( 4%)	0/31 ( 0%)	0/50 ( 0%)	0.57
B-Polyp, endometrial stromal	5/50 ( 10%)	11/24 ( 46%)	11/31 ( 35%)	11/50 ( 22%)	0.22
Dilatation	0/50 ( 0%)	1/24 ( 4%)	4/31 ( 13%)	3/50 ( 6%)	0.12
Hyperplasia, cystic endometrial	11/50 ( 22%)	4/24 ( 17%)	4/31 ( 13%)	11/50 ( 22%)	0.56
Inflammation, chronic	3/50 ( 6%)	0/24 ( 0%)	0/31 ( 0%)	0/50 ( 0%)	0.15
Inflammation, mixed	3/50 ( 6%)	0/24 ( 0%)	0/31 ( 0%)	0/50 ( 0%)	0.15
Intussusception	1/50 ( 2%)	1/24 ( 4%)	0/31 ( 0%)	2/50 ( 4%)	0.69
M-Adenocarcinoma, endometrial	0/50 ( 0%)	1/24 ( 4%)	2/31 ( 6%)	1/50 ( 2%)	0.59
M-Leiomyosarcoma	0/50 ( 0%)	1/24 ( 4%)	1/31 ( 3%)	0/50 ( 0%)	0.96
M-Leukemia, mononuclear	2/50 ( 4%)	3/24 ( 13%)	0/31 ( 0%)	1/50 ( 2%)	0.31
Vagina					
M-Leiomyosarcoma	0/0 ( .%)	1/1 ( 100%)	0/0 ( .%)	0/0 ( .%)	. .
Zymbal's gland					
M-Carcinoma, squamous cell	1/1 ( 100%)	0/0 ( .%)	0/0 ( .%)	0/0 ( .%)	. .

<sup>14</sup>Pairwise Fisher's exact tests: p=0.002 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.009 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.17 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.58 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.06 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.21 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-5. Statistical Evaluation of Microscopic Lesions in Males

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage		Fisher's	
	0	2	10	p-value	p-value	Exact	p-value
<b>Adrenal glands</b>							
B-Pheochromocytoma, benign	7/49 ( 14%)	4/35 ( 11%)	5/30 ( 17%)	0.91	0.79	0.95	0.95
B-Pheochromocytoma, complex, benign	1/49 ( 2%)	1/35 ( 3%)	0/30 ( 0%)	0.24	0.30	0.69	0.69
Cyst	0/49 ( 0%)	0/35 ( 0%)	0/30 ( 0%)	0.21	.	1.00	1.00
Degeneration, cytoplasmic vacuolization	5/49 ( 10%)	2/35 ( 6%)	2/30 ( 7%)	0.73	0.55	0.94	0.94
Hyperplasia, cortical, diffuse	0/49 ( 0%)	0/35 ( 0%)	1/30 ( 3%)	0.67	0.68	0.18	0.18
Hyperplasia, medullary, focal	8/49 ( 16%)	2/35 ( 6%)	5/30 ( 17%)	0.013	0.039	0.011 <sup>1</sup>	0.011 <sup>1</sup>
M-Leukemia, mononuclear	3/49 ( 6%)	1/35 ( 3%)	4/30 ( 13%)	0.99	0.99	0.35	0.35
M-Pheochromocytoma, malignant	3/49 ( 6%)	0/35 ( 0%)	0/30 ( 0%)	0.21	0.21	0.39	0.39
Necrosis	0/49 ( 0%)	0/35 ( 0%)	1/30 ( 3%)	0.24	0.19	0.56	0.56
Thrombus	2/49 ( 4%)	2/35 ( 6%)	3/30 ( 10%)	0.21	0.27	0.61	0.61
<b>Aorta</b>							
Dilatation	0/50 ( 0%)	0/34 ( 0%)	0/30 ( 0%)	0.21	.	1.00	1.00
N-Leukemia, mononuclear - invasive involvement	1/50 ( 2%)	0/34 ( 0%)	0/30 ( 0%)	0.22	.	1.00	1.00
<b>Bone, femur</b>							
Inflammation, acute	0/50 ( 0%)	0/50 ( 0%)	0/50 ( 0%)	0.18	.	1.00	1.00
New bone formation, endosteal	1/50 ( 2%)	1/50 ( 2%)	0/50 ( 0%)	0.79	0.84	1.00	1.00
<b>Bone, other</b>							
Hyperostosis	0/0 ( .%)	1/1 ( 100%)	0/0 ( .%)	0.16	.	1.00	1.00
M-Sarcoma, NOS	0/0 ( .%)	0/1 ( 0%)	0/0 ( .%)	0.16	.	1.00	1.00
<b>Brain</b>							
Compression	6/50 ( 12%)	2/34 ( 6%)	2/31 ( 6%)	0.51	0.36	0.85	0.85
Ectasia, ventricular system	2/50 ( 4%)	0/34 ( 0%)	0/31 ( 0%)	0.08	.	0.33	0.33
Edema	0/50 ( 0%)	0/34 ( 0%)	0/31 ( 0%)	0.21	.	1.00	1.00
Gliosis	1/50 ( 2%)	0/34 ( 0%)	0/31 ( 0%)	0.22	.	1.00	1.00
Hemorrhage	1/50 ( 2%)	0/34 ( 0%)	2/31 ( 6%)	0.82	.	0.18	0.18
Inflammation, acute	0/50 ( 0%)	0/34 ( 0%)	2/31 ( 6%)	0.55	0.53	0.034 <sup>2</sup>	0.034 <sup>2</sup>
Inflammation, chronic	1/50 ( 2%)	0/34 ( 0%)	0/31 ( 0%)	0.22	.	1.00	1.00
M-Astrocytoma, malignant	0/50 ( 0%)	1/34 ( 3%)	0/31 ( 0%)	0.55	0.60	0.82	0.82
Mineralization	0/50 ( 0%)	0/34 ( 0%)	0/31 ( 0%)	0.21	.	1.00	1.00
Necrosis	0/50 ( 0%)	0/34 ( 0%)	0/31 ( 0%)	0.21	.	1.00	1.00

<sup>1</sup>Pairwise Fisher's exact tests: p=0.18 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=1.00 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.06 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.23 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.003 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.12 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

<sup>2</sup>Pairwise Fisher's exact tests: p=0.14 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.22 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.14 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Bronchial (TBLN)					
Hemorrhage	0/49 ( 0%)	3/33 ( 9%)	0/28 ( 0%)	0.53	0.66
N-Leukemia, mononuclear	10/49 ( 20%)	9/33 ( 27%)	7/28 ( 25%)	0.48	0.48
N-Sarcoma, histiocytic	0/49 ( 0%)	1/33 ( 3%)	0/28 ( 0%)	0.70	0.71
Cecum					
N-Leukemia, mononuclear	2/50 ( 4%)	0/34 ( 0%)	0/30 ( 0%)	0.08	0.34
Colon					
B-Leiomyoma	0/50 ( 0%)	0/34 ( 0%)	0/30 ( 0%)	0.21	0.69
Inflammation, mixed	1/50 ( 2%)	0/34 ( 0%)	0/30 ( 0%)	0.22	1.00
Epididymis					
Atrophy	4/50 ( 8%)	5/36 ( 14%)	1/31 ( 3%)	0.56	0.89
Granuloma, sperm	0/50 ( 0%)	1/36 ( 3%)	0/31 ( 0%)	0.69	0.71
Inflammation, chronic	2/50 ( 4%)	0/36 ( 0%)	1/31 ( 3%)	0.23	0.26
M-Mesothelioma, malignant	0/50 ( 0%)	1/36 ( 3%)	0/31 ( 0%)	0.22	0.26
Eyes/optic nerve					
Atrophy	1/50 ( 2%)	0/34 ( 0%)	0/33 ( 0%)	0.21	1.00
Atrophy, retinal, unilateral	1/50 ( 2%)	0/34 ( 0%)	3/33 ( 9%)	0.57	0.20
Cataract	1/50 ( 2%)	0/34 ( 0%)	3/33 ( 9%)	0.57	0.76
Degeneration	1/50 ( 2%)	0/34 ( 0%)	0/33 ( 0%)	0.21	1.00
Inflammation, acute	0/50 ( 0%)	0/34 ( 0%)	1/33 ( 3%)	0.24	0.32
Inflammation, chronic	0/50 ( 0%)	0/34 ( 0%)	1/33 ( 3%)	0.67	0.64
Inflammation, mixed	1/50 ( 2%)	2/34 ( 6%)	0/33 ( 0%)	0.23	0.25
M-Leukemia, mononuclear	1/50 ( 2%)	1/34 ( 3%)	0/33 ( 0%)	0.24	0.31
Metaplasia, osseous, scleral	3/50 ( 6%)	0/34 ( 0%)	0/33 ( 0%)	0.030	0.11
Mineralization, corneal stromal	3/50 ( 6%)	0/34 ( 0%)	2/33 ( 6%)	0.49	0.42
Mineralization, scleral	3/50 ( 6%)	1/34 ( 3%)	6/33 ( 18%)	0.35	0.41
Neovascularization, corneal	3/50 ( 6%)	0/34 ( 0%)	2/33 ( 6%)	0.19	0.15
Harderian gland					
N-Carcinoma, squamous cell	1/1 ( 100%)	0/0 ( 0%)	0/0 ( 0%)	0.00	0.00
Heart					
Degeneration, myocyte	2/50 ( 4%)	1/34 ( 3%)	3/30 ( 10%)	0.46	0.57
Fibrosis	5/50 ( 10%)	5/34 ( 15%)	2/30 ( 7%)	0.54	0.47
Inflammation, acute	0/50 ( 0%)	0/34 ( 0%)	1/30 ( 3%)	0.67	0.63
Inflammation, focal, chronic	19/50 ( 38%)	9/34 ( 26%)	10/30 ( 33%)	0.87	0.78
M-Leukemia, mononuclear	4/50 ( 8%)	5/34 ( 15%)	3/30 ( 10%)	0.88	0.98
Thrombus	0/50 ( 0%)	1/34 ( 3%)	2/30 ( 7%)	0.18	0.23

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Ileum					
B-Fibroma	1/50 ( 2%)	0/34 ( 0%)	0/30 ( 0%)	0.22	1.00
Hyperplasia, lymphoid	2/50 ( 4%)	0/34 ( 0%)	0/30 ( 0%)	0.08	0.33
N-Leukemia, mononuclear	0/50 ( 0%)	1/34 ( 3%)	0/30 ( 0%)	0.69	0.39
Iliac LN					
Dilatation, sinusoidal	0/3 ( 0%)	0/1 ( 0%)	1/4 ( 25%)	0.64	1.00
N-Leukemia, mononuclear	3/3 (100%)	1/1 (100%)	3/4 ( 75%)	0.64	1.00
Jejunum					
M-Adenocarcinoma	2/50 ( 4%)	0/34 ( 0%)	0/30 ( 0%)	0.08	0.34
Kidneys					
B-Adenoma, renal tubule	0/50 ( 0%)	0/50 ( 0%)	6/50 ( 12%)	0.053	0.005 <sup>3</sup>
Cyst	0/50 ( 0%)	1/50 ( 2%)	2/50 ( 4%)	0.79	0.62
Degeneration, hyaline droplet	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.65	1.00
Infarct	0/50 ( 0%)	0/50 ( 0%)	2/50 ( 4%)	0.53	0.25
Inflammation, acute	0/50 ( 0%)	1/50 ( 2%)	2/50 ( 4%)	0.79	0.62
M-Carcinoma, renal tubule	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.53	1.00
M-Leukemia, mononuclear	4/50 ( 8%)	3/50 ( 6%)	1/50 ( 2%)	0.09	0.46
Nephropathy, chronic	44/50 ( 88%)	47/50 ( 94%)	50/50 (100%)	0.25	0.07
Pigment accumulation, tubular epithelium	3/50 ( 6%)	3/50 ( 6%)	1/50 ( 2%)	0.77	0.77
Larynx					
Hyperplasia, epithelial	24/50 ( 48%)	15/49 ( 31%)	15/50 ( 30%)	0.98	0.09
Inflammation, chronic	4/50 ( 8%)	2/49 ( 4%)	4/50 ( 8%)	0.89	0.92
Inflammation, mixed	40/50 ( 80%)	35/49 ( 71%)	41/50 ( 82%)	0.17	0.24
Metaplasia, squamous	8/50 ( 16%)	3/49 ( 6%)	6/50 ( 12%)	0.76	0.51
Ulceration	1/50 ( 2%)	0/49 ( 0%)	0/50 ( 0%)	0.18	1.00

<sup>3</sup>Pairwise Fisher's exact tests: p=0.03 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.49 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.03 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.49 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.27 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Liver					
Angiectasis	15/50 ( 30%)	4/40 ( 10%)	8/38 ( 21%)	0.32	0.49
B-Adenoma, hepatocellular	1/50 ( 2%)	0/40 ( 0%)	1/38 ( 3%)	0.80	0.95
Congestion	0/50 ( 0%)	0/40 ( 0%)	0/38 ( 0%)	0.20	.
Cyst	0/50 ( 0%)	0/40 ( 0%)	1/38 ( 3%)	0.67	0.63
Fatty Change	2/50 ( 4%)	1/40 ( 3%)	1/38 ( 3%)	0.20	0.19
Foci of cellular alteration, basophilic	1/50 ( 2%)	1/40 ( 3%)	0/38 ( 0%)	0.23	0.31
Hepodiaphragmatic nodule	1/50 ( 2%)	1/40 ( 3%)	1/38 ( 3%)	0.55	0.69
Hyperplasia, biliary	45/50 ( 90%)	34/40 ( 85%)	37/38 ( 97%)	0.38	0.47
Hyperplasia, hepatocellular, regenerative	1/50 ( 2%)	3/40 ( 8%)	3/38 ( 8%)	0.65	0.69
Inflammation, chronic	7/50 ( 14%)	1/40 ( 3%)	0/38 ( 0%)	0.65	0.46
M-Carcinoma, hepatocellular	1/50 ( 2%)	0/40 ( 0%)	0/38 ( 0%)	0.20	.
M-Leukemia, mononuclear	27/50 ( 54%)	29/40 ( 73%)	29/38 ( 76%)	0.37	0.31
M-Sarcoma, histiocytic	0/50 ( 0%)	1/40 ( 3%)	0/38 ( 0%)	0.54	0.50
M-Sarcoma, undifferentiated	0/50 ( 0%)	0/40 ( 0%)	1/38 ( 3%)	0.67	0.79
Necrosis	3/50 ( 6%)	4/40 ( 10%)	2/38 ( 5%)	0.89	0.86
Thrombus	0/50 ( 0%)	0/40 ( 0%)	0/38 ( 0%)	0.20	.
Vacuolization, cytoplasmic	1/50 ( 2%)	3/40 ( 8%)	1/38 ( 3%)	0.53	0.57
Lungs					
Alveolar histiocytosis	7/50 ( 14%)	10/50 ( 20%)	10/50 ( 20%)	0.33	0.50
Autolysis, marked	0/50 ( 0%)	0/50 ( 0%)	0/50 ( 0%)	0.18	.
B-Adenoma, bronchiolo-alveolar	1/50 ( 2%)	0/50 ( 0%)	1/50 ( 2%)	0.53	0.51
Congestion	0/50 ( 0%)	2/50 ( 4%)	0/50 ( 0%)	0.53	0.82
Cyst, squamous cell, keratinizing	0/50 ( 0%)	0/50 ( 0%)	0/50 ( 0%)	0.18	.
Fibrosis, focal	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	1.00	1.00
Hemorrhage	3/50 ( 6%)	7/50 ( 14%)	7/50 ( 14%)	0.51	0.58
Hyperplasia, alveolar epithelial, focal	8/50 ( 16%)	7/50 ( 14%)	2/50 ( 4%)	0.08	0.08
Hyperplasia, alveolar epithelial, widespread	1/50 ( 2%)	1/50 ( 2%)	0/50 ( 0%)	0.20	0.25
Inflammation, acute	1/50 ( 2%)	0/50 ( 0%)	1/50 ( 2%)	0.79	1.00
Inflammation, granulomatous	0/50 ( 0%)	2/50 ( 4%)	2/50 ( 4%)	0.54	0.62
Inflammation, mixed	1/50 ( 2%)	1/50 ( 2%)	5/50 ( 10%)	0.29	0.36
Metaplasia, squamous - alveolar epithelium	0/50 ( 0%)	2/50 ( 4%)	0/50 ( 0%)	0.53	0.44
Mineralization, uremic	0/50 ( 0%)	0/50 ( 0%)	0/50 ( 0%)	0.18	.
N-Leukemia, mononuclear - capillary involvement	24/50 ( 48%)	31/50 ( 62%)	32/50 ( 64%)	0.80	0.66
N-Leukemia, mononuclear - invasive involvement	1/50 ( 2%)	1/50 ( 2%)	1/50 ( 2%)	1.00	0.95
N-Sarcoma, histiocytic	0/50 ( 0%)	2/50 ( 4%)	0/50 ( 0%)	0.53	0.55

<sup>4</sup>Pairwise Fisher's exact tests: p=0.04 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.46 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.67 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.22 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.006 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.16 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

<sup>5</sup>Pairwise Fisher's exact tests: p=0.07 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.018 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=1.00 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=1.00 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.13 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.03 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Lymph node other					
Dilatation, sinusoidal	0/6 ( 0%)	1/4 ( 25%)	0/9 ( 0%)	0/7 ( 0%)	0.55
Infiltration, histiocytic	0/6 ( 0%)	1/4 ( 25%)	1/9 ( 11%)	0/7 ( 0%)	0.84
N-Leukemia, mononuclear	5/6 ( 83%)	2/4 ( 50%)	7/9 ( 78%)	6/7 ( 86%)	0.70
Sinus plasmacytosis	1/6 ( 17%)	0/4 ( 0%)	0/9 ( 0%)	1/7 ( 14%)	0.84
Mammary gland					
B-Fibroadenoma	0/36 ( 0%)	0/31 ( 0%)	0/29 ( 0%)	1/47 ( 2%)	0.24
B-Fibroma	2/36 ( 6%)	2/31 ( 6%)	3/29 ( 10%)	1/47 ( 2%)	0.57
Cyst	0/36 ( 0%)	0/31 ( 0%)	1/29 ( 3%)	0/47 ( 0%)	0.74
Ectasia	1/36 ( 3%)	0/31 ( 0%)	0/29 ( 0%)	1/47 ( 2%)	0.90
Hyperplasia, lobular	0/36 ( 0%)	1/31 ( 3%)	0/29 ( 0%)	5/47 ( 11%)	0.025
N-Sarcoma, histiocytic	0/36 ( 0%)	2/31 ( 6%)	0/29 ( 0%)	0/47 ( 0%)	0.46
Mandibular LN					
Hemorrhage	1/40 ( 3%)	0/32 ( 0%)	0/30 ( 0%)	0/48 ( 0%)	0.18
Hyperplasia, lymphoid	1/40 ( 3%)	0/32 ( 0%)	1/30 ( 3%)	0/48 ( 0%)	0.49
N-Leukemia, mononuclear	13/40 ( 33%)	10/32 ( 31%)	9/30 ( 30%)	9/48 ( 19%)	0.14
Sinus plasmacytosis	1/40 ( 3%)	0/32 ( 0%)	0/30 ( 0%)	0/48 ( 0%)	0.18
Mediastinal LN					
Hemorrhage	2/49 ( 4%)	1/30 ( 3%)	2/30 ( 7%)	2/50 ( 4%)	0.89
N-Leukemia, mononuclear	9/49 ( 18%)	7/30 ( 23%)	5/30 ( 17%)	8/50 ( 16%)	0.64
N-Sarcoma, histiocytic	0/49 ( 0%)	1/30 ( 3%)	0/30 ( 0%)	0/50 ( 0%)	0.68
Pigmentation	0/49 ( 0%)	1/30 ( 3%)	0/30 ( 0%)	0/50 ( 0%)	0.68
Mediastinum					
N-Leukemia, mononuclear	1/1 ( 100%)	0/0 ( .%)	0/0 ( .%)	0/0 ( .%)	. .
Mesenteric LN					
Hemorrhage	1/50 ( 2%)	0/34 ( 0%)	0/30 ( 0%)	0/50 ( 0%)	0.22
Histiocytosis, sinus	1/50 ( 2%)	0/34 ( 0%)	0/30 ( 0%)	0/50 ( 0%)	0.22
N-Leukemia, mononuclear	6/50 ( 12%)	3/34 ( 9%)	5/30 ( 17%)	6/50 ( 12%)	0.81
N-Sarcoma, histiocytic	0/50 ( 0%)	1/34 ( 3%)	0/30 ( 0%)	0/50 ( 0%)	0.69
Mesentery					
Inflammation, mixed	0/0 ( .%)	1/1 ( 100%)	0/1 ( 0%)	0/0 ( .%)	0.16
M-Mesothelioma, malignant	0/0 ( .%)	0/1 ( 0%)	1/1 ( 100%)	0/0 ( .%)	0.16

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
<b>Muscle, skeletal</b>					
Inflammation, chronic	0/50 ( 0%)	0/34 ( 0%)	1/30 ( 3%)	0.67	0.46
M-Leukemia, mononuclear	0/50 ( 0%)	0/34 ( 0%)	1/30 ( 3%)	0.67	0.69
N-Sarcoma, histiocytic	0/50 ( 0%)	2/34 ( 6%)	0/30 ( 0%)	0.57	0.57
<b>Nose/Turbinates 1</b>					
Degeneration - respiratory epithelium	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.18	1.00
Degeneration, hyaline - respiratory epithelium	0/50 ( 0%)	3/50 ( 6%)	5/50 ( 10%)	0.13	0.12
Hyperplasia - respiratory epithelium	3/50 ( 6%)	0/50 ( 0%)	3/50 ( 6%)	0.38	0.21
Inflammation - nasolacrimal duct	11/50 ( 22%)	11/50 ( 22%)	15/50 ( 30%)	0.61	0.60
Inflammation - respiratory epithelium	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	1.00	0.98
Inflammation, mixed	7/50 ( 14%)	5/50 ( 10%)	8/50 ( 16%)	1.00	0.91
M-Leukemia, mononuclear	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.18	1.00
Metaplasia, squamous - respiratory epithelium	3/50 ( 6%)	2/50 ( 4%)	1/50 ( 2%)	0.06	0.060
Metaplasia, squamous - transitional epithelium	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.18	1.00
<b>Nose/Turbinates 2</b>					
Degeneration - olfactory epithelium	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.18	1.00
Degeneration - respiratory epithelium	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	0.65	1.00
Degeneration, hyaline - olfactory epithelium	0/50 ( 0%)	5/50 ( 10%)	7/50 ( 14%)	0.027	0.032 <sup>6</sup>
Degeneration, hyaline - respiratory epithelium	0/50 ( 0%)	1/50 ( 2%)	2/50 ( 4%)	0.06	0.10
Hyperplasia - respiratory epithelium	0/50 ( 0%)	2/50 ( 4%)	2/50 ( 4%)	0.12	0.52
Inflammation, mixed	4/50 ( 8%)	6/50 ( 12%)	3/50 ( 6%)	1.00	0.97
M-Carcinoma, squamous cell	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.18	1.00
M-Leukemia, mononuclear	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.18	1.00
Metaplasia, secretory - olfactory epithelium	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.65	0.63
Metaplasia, squamous - olfactory epithelium	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.65	0.59
Metaplasia, squamous - respiratory epithelium	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	0.65	0.72
<b>Nose/Turbinates 3</b>					
Degeneration, hyaline - olfactory epithelium	2/50 ( 4%)	1/50 ( 2%)	7/50 ( 14%)	0.017	0.026
Inflammation, mixed	4/50 ( 8%)	1/50 ( 2%)	1/50 ( 2%)	0.65	0.53
M-Carcinoma, squamous cell	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.53	0.56
M-Leukemia, mononuclear	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.18	1.00

<sup>6</sup>Pairwise Fisher's exact tests: p=0.06 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.012 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.03 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.76 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=1.00 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=1.00 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Nose/Turbinates 4			20		
Degeneration - olfactory epithelium	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.65
Degeneration, hyaline - olfactory epithelium	0/50 ( 0%)	0/50 ( 0%)	1/50 ( 2%)	1/50 ( 2%)	0.20
Inflammation, mixed	2/50 ( 4%)	0/50 ( 0%)	1/50 ( 2%)	2/50 ( 4%)	0.84
M-Leukemia, mononuclear	1/50 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0/50 ( 0%)	0.18
N-Carcinoma, squamous cell	0/50 ( 0%)	2/50 ( 4%)	0/50 ( 0%)	2/50 ( 4%)	0.37
Pancreas					
M-Carcinoma, ductal cell	0/50 ( 0%)	0/34 ( 0%)	0/30 ( 0%)	1/49 ( 2%)	0.21
M-Leukemia, mononuclear	1/50 ( 2%)	0/34 ( 0%)	0/30 ( 0%)	0/49 ( 0%)	0.22
Pancreatic LN					
N-Leukemia, mononuclear	5/5 (100%)	2/2 (100%)	2/2 (100%)	4/4 (100%)	.
Parathyroid					
Hyperplasia, diffuse	0/45 ( 0%)	0/33 ( 0%)	0/30 ( 0%)	1/46 ( 2%)	0.21
Hyperplasia, focal	0/45 ( 0%)	0/33 ( 0%)	0/30 ( 0%)	2/46 ( 4%)	0.07
Pituitary gland					
Angiectasis	2/49 ( 4%)	0/37 ( 0%)	0/34 ( 0%)	3/50 ( 6%)	0.57
B-Adenoma, pars distalis	9/49 (18%)	9/37 (24%)	6/34 (18%)	5/50 (10%)	0.20
Cyst	4/49 ( 8%)	7/37 (19%)	7/34 (21%)	6/50 (12%)	0.58
Hemorrhage	3/49 ( 6%)	0/37 ( 0%)	0/34 ( 0%)	2/50 ( 4%)	0.57
Hyperplasia, pars distalis, focal	5/49 (10%)	4/37 (11%)	3/34 ( 9%)	8/50 (16%)	0.42
Inflammation, chronic	0/49 ( 0%)	0/37 ( 0%)	0/34 ( 0%)	1/50 ( 2%)	0.21
M-Leukemia, mononuclear	1/49 ( 2%)	1/37 ( 3%)	1/34 ( 3%)	1/50 ( 2%)	1.00
Popliteal LN					
N-Leukemia, mononuclear	2/2 (100%)	0/0 ( .%)	2/2 (100%)	2/2 (100%)	.
Preputial gland					
Cyst, epithelial inclusion	0/4 ( 0%)	0/1 ( 0%)	1/3 ( 33%)	0/2 ( 0%)	0.53
Ectasia	2/4 ( 50%)	1/1 (100%)	2/3 ( 67%)	2/2 (100%)	0.27
Inflammation, chronic	1/4 ( 25%)	0/1 ( 0%)	0/3 ( 0%)	1/2 ( 50%)	0.79
Inflammation, mixed	3/4 ( 75%)	0/1 ( 0%)	0/3 ( 0%)	1/2 ( 50%)	0.23
Prostate					
Atrophy	3/50 ( 6%)	0/33 ( 0%)	0/29 ( 0%)	5/50 (10%)	0.36
Hemorrhage	0/50 ( 0%)	0/33 ( 0%)	0/29 ( 0%)	1/50 ( 2%)	0.21
Hyperplasia	0/50 ( 0%)	0/33 ( 0%)	1/29 ( 3%)	0/50 ( 0%)	0.67
Inflammation, acute	2/50 ( 4%)	1/33 ( 3%)	0/29 ( 0%)	0/50 ( 0%)	0.10
Inflammation, mixed	15/50 (30%)	12/33 (36%)	16/29 (55%)	13/50 (26%)	0.97
Mineralization	1/50 ( 2%)	0/33 ( 0%)	0/29 ( 0%)	0/50 ( 0%)	0.22

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Salivary gland					
Degeneration	0/50 ( 0%)	0/34 ( 0%)	0/30 ( 0%)	0.21	1.00
Inflammation, acute	0/50 ( 0%)	0/34 ( 0%)	0/30 ( 0%)	0.21	1.00
M-Leukemia, mononuclear	0/50 ( 0%)	0/34 ( 0%)	2/30 ( 7%)	0.22	0.17
Sciatic nerve					
N-Leukemia, mononuclear	1/50 ( 2%)	0/34 ( 0%)	0/30 ( 0%)	0.22	1.00
Seminal vesicle					
Atrophy	15/50 ( 30%)	2/35 ( 6%)	8/37 ( 22%)	0.28	0.006 <sup>7</sup>
Dilatation	0/50 ( 0%)	1/35 ( 3%)	1/37 ( 3%)	0.47	0.78
Hyperplasia	0/50 ( 0%)	1/35 ( 3%)	0/37 ( 0%)	0.67	0.20
M-Leukemia, mononuclear	1/50 ( 2%)	0/35 ( 0%)	1/37 ( 3%)	0.54	0.83
Skin					
B-Fibroma	2/49 ( 4%)	0/37 ( 0%)	1/35 ( 3%)	0.22	0.32
B-Keratoacanthoma	0/49 ( 0%)	0/37 ( 0%)	0/35 ( 0%)	0.21	1.00
B-Tumor, basal cell, benign	0/49 ( 0%)	0/37 ( 0%)	0/35 ( 0%)	0.21	1.00
B-Tumor, hair follicle, benign	0/49 ( 0%)	0/37 ( 0%)	1/35 ( 3%)	0.67	0.20
Cyst, epithelial inclusion	0/49 ( 0%)	0/37 ( 0%)	0/35 ( 0%)	0.21	1.00
Fibrosis	1/49 ( 2%)	2/37 ( 5%)	0/35 ( 0%)	0.22	0.23
Hyperkeratosis	1/49 ( 2%)	1/37 ( 3%)	2/35 ( 6%)	0.67	0.34
Inflammation, chronic	1/49 ( 2%)	0/37 ( 0%)	0/35 ( 0%)	0.20	0.71
Inflammation, mixed	0/49 ( 0%)	3/37 ( 8%)	2/35 ( 6%)	0.84	0.76
M-Carcinoma, sebaceous cell	0/49 ( 0%)	1/37 ( 3%)	0/35 ( 0%)	0.67	0.42
M-Sarcoma, undifferentiated	0/49 ( 0%)	1/37 ( 3%)	2/35 ( 6%)	0.81	0.09
N-Sarcoma, histiocytic	0/49 ( 0%)	2/37 ( 5%)	0/35 ( 0%)	0.55	0.09
Necrosis	0/49 ( 0%)	1/37 ( 3%)	0/35 ( 0%)	0.67	0.42
Spinal cord					
Degeneration, white matter	1/50 ( 2%)	0/34 ( 0%)	0/30 ( 0%)	0.22	1.00
Hemorrhage	1/50 ( 2%)	0/34 ( 0%)	1/30 ( 3%)	0.57	0.56
Inflammation, acute	0/50 ( 0%)	0/34 ( 0%)	1/30 ( 3%)	0.67	0.18

<sup>7</sup>Pairwise Fisher's exact tests: p=0.006 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.46 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.67 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.09 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.001 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.16 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.  
<sup>8</sup>Pairwise Fisher's exact tests: p=0.08 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.17 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=1.00 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.07 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.17 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Continued)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
<b>Spleen</b>					
Congestion	0/50 ( 0%)	1/39 ( 3%)	1/38 ( 3%)	0/50 ( 0%)	1.00
Fibrosis	3/50 ( 6%)	2/39 ( 5%)	5/38 ( 13%)	0/50 ( 0%)	0.41
Hemorrhage	0/50 ( 0%)	1/39 ( 3%)	0/38 ( 0%)	0/50 ( 0%)	0.65
M-Fibrosarcoma	0/50 ( 0%)	0/39 ( 0%)	0/38 ( 0%)	1/50 ( 2%)	0.20
M-Leukemia, mononuclear	27/50 ( 54%)	31/39 ( 79%)	31/38 ( 82%)	31/50 ( 62%)	0.39
N-Sarcoma, histiocytic	0/50 ( 0%)	0/39 ( 0%)	0/38 ( 0%)	1/50 ( 2%)	0.20
Necrosis	2/50 ( 4%)	2/39 ( 5%)	1/38 ( 3%)	1/50 ( 2%)	0.48
<b>Stomach</b>					
Hyperplasia, squamous epithelial	2/50 ( 4%)	0/34 ( 0%)	0/30 ( 0%)	0/49 ( 0%)	0.08
Inflammation, mixed	2/50 ( 4%)	1/34 ( 3%)	0/30 ( 0%)	0/49 ( 0%)	0.10
<b>Tail</b>					
Cyst, epithelial inclusion	0/1 ( 0%)	1/2 ( 50%)	0/1 ( 0%)	0/0 ( .%)	1.00
Hyperplasia/hyperkeratosis	0/1 ( 0%)	2/2 (100%)	1/1 (100%)	0/0 ( .%)	0.10
Inflammation, acute	1/1 (100%)	0/2 ( 0%)	0/1 ( 0%)	0/0 ( .%)	0.10
Inflammation, mixed	0/1 ( 0%)	2/2 (100%)	1/1 (100%)	0/0 ( .%)	0.10
<b>Testes</b>					
Atrophy	1/50 ( 2%)	4/50 ( 8%)	3/50 ( 6%)	5/50 ( 10%)	0.16
B-Adenoma, interstitial cell	43/50 ( 86%)	47/50 ( 94%)	48/50 ( 96%)	50/50 (100%)	0.003
Hemorrhage	0/50 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	1/50 ( 2%)	0.53
Hyperplasia, interstitial cell	5/50 ( 10%)	6/50 ( 12%)	3/50 ( 6%)	2/50 ( 4%)	0.16
M-Mesothelioma, malignant	0/50 ( 0%)	1/50 ( 2%)	1/50 ( 2%)	2/50 ( 4%)	0.18
<b>Thymus</b>					
Hemorrhage	0/1 ( 0%)	0/0 ( .%)	0/0 ( .%)	1/2 ( 50%)	0.39
M-Leukemia, mononuclear	1/1 (100%)	0/0 ( .%)	0/0 ( .%)	1/2 ( 50%)	0.39
<b>Thyroid glands</b>					
B-Adenoma, C-cell	3/50 ( 6%)	4/35 ( 11%)	4/31 ( 13%)	3/50 ( 6%)	0.97
B-Adenoma, follicular cell	2/50 ( 4%)	0/35 ( 0%)	0/31 ( 0%)	3/50 ( 6%)	0.56
Cyst, follicular	1/50 ( 2%)	1/35 ( 3%)	3/31 ( 10%)	3/50 ( 6%)	0.22
Hyperplasia, C-cell, focal	4/50 ( 8%)	2/35 ( 6%)	0/31 ( 0%)	7/50 ( 14%)	0.38
Hyperplasia, follicular cell	0/50 ( 0%)	0/35 ( 0%)	1/31 ( 3%)	0/50 ( 0%)	0.67
M-Carcinoma, C-cell	0/50 ( 0%)	2/35 ( 6%)	0/31 ( 0%)	0/50 ( 0%)	0.52
M-Carcinoma, follicular cell	1/50 ( 2%)	0/35 ( 0%)	1/31 ( 3%)	3/50 ( 6%)	0.18

<sup>9</sup>Pairwise Fisher's exact tests: p=0.014 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.012 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.54 for 0 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=1.00 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.10 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.06 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

<sup>10</sup>Pairwise Fisher's exact tests: p=0.32 for 0 g/m<sup>3</sup> cf. 2 g/m<sup>3</sup>; p=0.16 for 0 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.012 for 0 g/m<sup>3</sup> cf. 20g/m<sup>3</sup>; p=1.00 for 2 g/m<sup>3</sup> cf. 10 g/m<sup>3</sup>; p=0.24 for 2 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>; p=0.49 for 10 g/m<sup>3</sup> cf. 20 g/m<sup>3</sup>.

Table O-5. Statistical Evaluation of Microscopic Lesions in Males (Concluded)

Tissue and Diagnosis	Exposure Concentration (g/m <sup>3</sup> )			Cochran Armitage p-value	Fisher's Exact p-value
	0	2	10		
Tiss.not specified					
B-Fibroma	0/1 ( 0%)	0/2 ( 0%)	1/3 ( 33%)	0/5 ( 0%)	0.92
B-Lipoma	1/1 (100%)	0/2 ( 0%)	0/3 ( 0%)	1/5 ( 20%)	0.35
Cyst	0/1 ( 0%)	0/2 ( 0%)	0/3 ( 0%)	1/5 ( 20%)	0.34
Inflammation, mixed	0/1 ( 0%)	0/2 ( 0%)	1/3 ( 33%)	0/5 ( 0%)	0.92
M-Mesothelioma, malignant	0/1 ( 0%)	0/2 ( 0%)	0/3 ( 0%)	2/5 ( 40%)	0.15
Mammary tissue	0/1 ( 0%)	0/2 ( 0%)	1/3 ( 33%)	0/5 ( 0%)	0.92
Myodegeneration	0/1 ( 0%)	1/2 ( 50%)	0/3 ( 0%)	0/5 ( 0%)	0.25
N-Sarcoma, histiocytic	0/1 ( 0%)	1/2 ( 50%)	0/3 ( 0%)	0/5 ( 0%)	0.25
Splenic tissue, "accessory"	0/1 ( 0%)	0/2 ( 0%)	0/3 ( 0%)	1/5 ( 20%)	0.34
Trachea					
Hyperplasia, epithelial	1/50 ( 2%)	1/49 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.20
Inflammation, acute	0/50 ( 0%)	1/49 ( 2%)	0/50 ( 0%)	0/50 ( 0%)	0.65
Inflammation, chronic	1/50 ( 2%)	2/49 ( 4%)	1/50 ( 2%)	1/50 ( 2%)	0.84
Inflammation, mixed	1/50 ( 2%)	1/49 ( 2%)	0/50 ( 0%)	4/50 ( 8%)	0.14
Metaplasia, squamous	1/50 ( 2%)	0/49 ( 0%)	0/50 ( 0%)	0/50 ( 0%)	0.18
N-Leukemia, mononuclear	2/50 ( 4%)	0/49 ( 0%)	1/50 ( 2%)	0/50 ( 0%)	0.19
Urinary bladder					
B-Papilloma, transitional cell	1/50 ( 2%)	0/33 ( 0%)	0/29 ( 0%)	0/50 ( 0%)	0.22
Hemorrhage	0/50 ( 0%)	0/33 ( 0%)	0/29 ( 0%)	1/50 ( 2%)	0.21
Inflammation, chronic	3/50 ( 6%)	0/33 ( 0%)	0/29 ( 0%)	3/50 ( 6%)	0.98
Inflammation, mixed	0/50 ( 0%)	0/33 ( 0%)	0/29 ( 0%)	1/50 ( 2%)	0.21
M-Leukemia, mononuclear	1/50 ( 2%)	1/33 ( 3%)	0/29 ( 0%)	1/50 ( 2%)	0.82
Zymbal's gland					
M-Carcinoma, squamous cell	0/0 ( .%)	0/0 ( .%)	0/0 ( .%)	1/1 (100%)	. .

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211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)  
May 2010

APPENDIX P  
PATHOLOGIST'S REPORT

Study Number FY01-013  
211(b) Chronic Carcinogenicity Study  
Gasoline MTBE Vapor Condensate (GMVC)

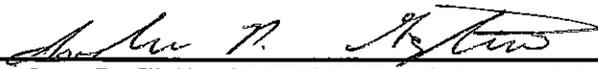
**Study Number FY01-013**

**Study Title: 211(b) Chronic Carcinogenicity Study Gasoline MTBE Vapor Condensate  
(GMVC)**

**LRRI Protocol Number: FY01-013**

**Appendix P**

**PATHOLOGIST'S REPORT**

  
\_\_\_\_\_  
Andrew P. Gigliotti DVM, PhD, Diplomate ACVP

*12 May 2010*  
Date

## **INTRODUCTION**

Four hundred (400) F344 rats exposed to gasoline MTBE vapor condensate (GMVC) in whole body inhalation exposure chambers were examined. Males and females were divided equally into 4 groups (50 males and 50 females per group) and exposed to 0 g/m<sup>3</sup>, 2 g/m<sup>3</sup>, 10 g/m<sup>3</sup> or 20 g/m<sup>3</sup> GMVC for 6 hours/day, 5 days/week for 104 weeks (520 exposure days). The sole scheduled sacrifice occurred after 104 weeks (520 days) of exposure. Gross necropsy and tissue collection was performed as specified in the main report text.

## **METHODS**

### Hematology

Blood was collected on control and high-level GMVC rats by tail nick at 12 and 18 months of exposure and was collected from all final sacrifice rats by cardiac puncture for assessment of total and differential white blood cell counts. Duplicate blood smears were prepared and read manually for the control and high-level groups at all three time points. Percentages of each nucleated cell type were counted. An estimate of the number of white blood cells in each sample was made according to LRRRI SOP. Absolute numbers of each cell type were calculated by multiplying the fraction of each cell type by the estimated white blood cell count.

### Gross Pathology

As expected in a chronic study, a wide spectrum of gross lesions was documented at necropsy. Complete gross lesion incidences as well as correlation of gross and histologic lesions are located in Appendix M (males) and N (females). Gross lesions were examined histologically in all groups.

### Histopathology

All study animals received a complete necropsy. Animals were euthanized with an overdose of intraperitoneally injected barbiturate anesthetic (Euthasol<sup>®</sup>, Virbac AH Inc., Fort Worth, TX). Body weights and fresh organ weights were collected on lungs, liver, kidneys, adrenals, testes, epididymides, ovaries, uterus, spleen, brain and heart of final sacrifice and moribund sacrifice animals. Animals found dead received a complete necropsy with tissue collection, but blood and organ weight data were not routinely collected. Cardiac blood was collected from animals at final sacrifice for determination of total and differential white blood

cell counts. Gross lesions, body weights, and organ weights were entered on pre-prepared forms and then the information was recorded on the Path-Tox database (Version 4.2.2, Module P, Xybion Medical Systems, Cedar Knolls, NJ).

Lungs were gently instilled via the trachea with 10% neutral buffered formalin (NBF) to approximate normal volume. Organs/tissues were immersion fixed in 10% NBF for subsequent histopathologic examination. Tissues were trimmed, processed routinely, paraffin embedded, sectioned at 5  $\mu\text{m}$  and stained with hematoxylin and eosin for histopathologic examination.

All collected tissues and lesions were examined histologically in control ( $0 \text{ g/m}^3$ ) animals, high- ( $20 \text{ g/m}^3$ ) level animals, and dead or moribund animals of all groups. Respiratory tissues (lungs, larynx, trachea and nasal turbinate sections), potential target tissues (testes, kidneys of males) and gross lesions were examined histologically from final sacrifice low- ( $2 \text{ g/m}^3$ ) and mid- ( $10 \text{ g/m}^3$ ) level animals. Nomenclature of proliferative lesions was based on the international harmonized nomenclature recommended by the Rat Nomenclature Reconciliation Subcommittee of the Society of Toxicologic Pathologists (see <http://www.toxpath.org>; Standardized Rat Nomenclature). Nomenclature of other lesions was routine, widely understood usage (see Boorman et al., 1990a; Gopinath et al., 1987).

Standard, subjective severity scoring of most nonproliferative lesions was based on the extent of tissue affected by the change and the severity of the change within affected areas. Typically, a score of 0 (none) = essentially no tissue affected; 1 (minimal) = ~1 to 10% affected, 2 (mild) = ~11 to 25% affected, 3 (moderate) = ~26 to 50% affected, 4 (marked) = ~51 to 100% affected. Severity scores may have been adjusted up or down (usually by 1 point) based on the intensity of the change within the affected areas.

Because the diagnosis of chronic progressive nephropathy encompasses a large constellation of changes, severity scoring for this diagnosis was somewhat more complex and is described in Table P-1.

#### Statistical Analyses

Statistical analyses of both hematology and histopathology data were conducted as detailed in the statistician's report (Appendix O). In the case of renal tubule nephropathy and nasal epithelial degeneration, statistical evaluation of group differences in severity scores was

performed using the Kolmogorov-Smirnov test within the Path-Tox software (significance level  $p = 0.05$ ; *c.f.* Algorithms used in Path/Tox System 4.2.2; Vol. I, Chap. 7, pp. 24-25).

Table P-1. Severity Scoring of Chronic Progressive Nephropathy

Score	Histologic Findings
0	Essentially no changes of CPN. May have rare scattered protein casts in tubules, mineral concretions.
1	Increased number and size of tubular protein casts; primarily within tubules at the corticomedullary junction, some within collecting ducts. Minor/scattered foci of basophilic, regenerative tubules. Changes affect less than ~5% of tissue component.
2	Homogeneous protein casts relatively abundant within tubules and collecting ducts (especially at corticomedullary junction). Increased size and frequency of tubular basophilia. Accompanying changes present, may include small foci of tubular basement membrane thickening and/or mineralization, interstitial fibrosis, tubular atrophy and dilatation, minor associated mononuclear inflammatory infiltrates, glomerular changes (including mesangial proliferation, synechiae, proliferation of parietal epithelium). Changes may affect up to ~25% of component.
3	As 2 with increased tubular atrophy/dilatation/regeneration, interstitial fibrosis, increased inflammatory infiltrates, increased thickening of basement membranes of tubules and glomeruli.
4	As 3 with increased severity and extent of changes. Senescent glomeruli relatively common. Typically combined changes affect well over 50% of kidney.

## RESULTS

### Hematology

The high incidence of leukemia in aged F344 rats, other physiologic changes with aging, sampling differences between time points and the limitations of manual hematology (*e.g.*, the small numbers of leukocytes other than neutrophils and lymphocytes counted) dictate that the hematology results be interpreted with caution. Trend tests within a group across all sampling periods frequently show a statistical difference, but are not expected to be biologically significant for the reasons noted above (some specific examples follow). A statistically significant increase relative to controls in WBC estimate, “absolute” neutrophils, and “absolute” lymphocytes was noted in high-level group males at 12 months. This change is not present in females and does not persist in males at 18 or 24 months. It is interpreted as an excitement response probably resulting from initial blood sampling difficulties. The increase in atypical lymphocytes in both the control and the high-level group at 24 months is consistent with the high incidence of

leukemia in these aged F344 rats. Other statistically significant changes are unlikely to be biologically significant based on the small numbers of leukocytes of that type (such as band neutrophils, monocytes or eosinophils) counted in blood smears.

#### Histopathology

Condensed tables including only microscopic lesions judged to be more relevant as potential effects of GMVC exposure or those for which reviewers indicated an interest are presented below. Note that all microscopic findings are not included here; refer to the summary tables in Appendices M and N for a complete listing. Though some comparisons are included here, see GMVC main report for more complete comparison between findings from this study and the Baseline Gasoline Vapor Condensate (BGVC) study run concurrently.

Proliferative Lesions. Proliferative lesions include hyperplasias and neoplasias (both benign and malignant). As is evident in the complete lesion incidence summary tables (Appendices M and N), scattered hyperplasias and neoplasias occur relatively commonly in aged F344 male and female rats.

Male rats in the mid-level GMVC group demonstrated a significant increase in the incidence of renal tubule cell adenomas in mid-dose animals, with 0/50 (0%), 0/50 (0%), 6/50 (12%) and 2/50 (4%) in the control, low, mid and high groups, respectively (Table P-2). Although not statistically significant alone, there was also an increase in renal tubule carcinomas in the males (1/50; 2% in low- and 1/50; 2% in high-level males). Combining adenomas and carcinomas for analysis maintained the statistically significant increase in tumors in mid-dose animals, and additionally showed a significant trend toward increased incidence with increased exposure concentration (Table P-2).

Squamous cell carcinoma occurred in nasal sections of males with an animal incidence (incidence of tumor occurring in any of turbinates 2–4) of 1/50 (2%), 2/50 (4%), 0/50 (0%) and 2/50 (4%) for control, low-, mid- and high-dose animals, respectively, with no statistically significant differences or trends. In all instances, the tumors were judged to have arisen in the oral cavity (Appendix M-6). Animal incidence is relevant because the same tumor may occur in more than one nasal section. This is true for the low- and high-level groups for male nasal turbinates 3 and 4 (Table P-2), where one animal in each group has a tumor spanning levels 3 and 4.

No significant changes in incidence were seen for thyroid follicular cell adenoma or carcinoma. Combining thyroid follicular cell adenoma and carcinoma in male rats gave a combined incidence of 3/50 (6%), 0/35 (0%), 1/31 (3%) and 5/50 (10%) for control, low-, mid- and high-level groups, respectively. No statistical significance was found upon combining the incidences of adenomas and carcinomas. Note that one high-dose male had both an adenoma and a carcinoma, yielding a combined incidence of 5/50 (10%). However, even when counting adenoma and carcinoma in this animal individually, yielding an incidence 6/50 (12%) for this group (arguably the most conservative combined incidence from a risk assessment perspective) the difference is not significant using Fisher's exact test;  $p = 0.130$ . See e-mail correspondence from statistician including statistical test in study file). A statistically significant increase in thyroid follicular cell carcinomas (but not combined adenomas and carcinomas) was observed among males in the Baseline Gasoline Vapor Condensate study run concurrently (FY01-027).

As expected, there was a high background incidence of testicular interstitial adenomas in control male rats (43/50; 86%). There was a significant trend toward increased incidence with increased dose (with 47/50; 94% in lows and 48/50; 96% in mids), and the incidence among high-level males (50/50; 100%) was significantly greater than the control incidence (Table P-2). Essentially all testes with adenomas had foci of hyperplasia when the testis was not entirely effaced by tumors. However, the frequent effacement of testicular parenchyma by tumors in this chronic study renders the diagnosis of hyperplasia in testes with tumors of little or no value. Thus interstitial cell hyperplasia was recorded primarily in testes without tumors (see Appendix M).

Mesothelioma was present at a relatively low incidence of 0/50 (0%), 1/50 (2%), 1/50 (2%) and 2/50 (4%) for control, low-, mid- and high-level groups, respectively, and no statistical differences were noted for this neoplasm. Incidences in this study were comparable to the historical incidences for NTP studies (0–10% with a mean of ~3% [Haseman et al., 1998]). Results are somewhat different from those obtained in the Baseline Gasoline Vapor Condensate study, where a significant trend toward increased mesothelioma was noted (Fisher's Exact test). It should be noted that no testicular mesotheliomas were present in control animals in this or in the Baseline Gasoline Vapor Condensate study.

Table P-2. Incidence of Selected Proliferative (Neoplastic and Hyperplastic) Lesions

		Control (0 g/m <sup>3</sup> )	Low (2 g/m <sup>3</sup> )	Mid (10 g/m <sup>3</sup> )	High (20 g/m <sup>3</sup> )
<u>MALES</u>					
Kidney	<i>No. examined</i>	50	50	50	50
	Adenoma, renal tubule	0 (0%)	0 (0%)	6 (12%) <sup>a</sup>	2 (4%)
	Carcinoma, renal tubule	0 (0%)	1 (2%)	0 (0%)	1 (2%)
	Renal tubule adenoma and carcinoma, combined	0 (0%)	1 (2%)	6 (12%) <sup>b</sup>	3 (6%)
Nasal Sections (Note that the same tumor may appear in more than one level.)	<u>Turbinate Level 1</u>				
	<i>No. examined</i>	50	50	50	50
	Hyperplasia	3 (6%)	0 (0%)	3 (6%)	4 (8%)
	Avg. severity	0.2	0.0	0.1	0.2
	<u>Turbinate Level 2</u>				
	<i>No. examined</i>	50	50	50	50
	Hyperplasia	0 (0%)	2 (4%)	2 (4%)	3 (6%)
	Avg. severity	0.0	0.1	0.1	0.2
	Carcinoma, squamous cell	1 (2%)	0 (0%)	0 (0%)	0 (0%)
	<u>Turbinate Level 3</u>				
	<i>No. examined</i>	50	50	50	50
	Carcinoma, squamous cell	0 (0%)	1 (2%)	0 (0%)	1 (2%)
<u>Turbinate Level 4</u>					
<i>No. examined</i>	50	50	50	50	
Carcinoma, squamous cell	0 (0%)	2 (4%)	0 (0%)	2 (4%)	
Thyroid	<i>No. examined</i>	50	35	31	50
	Hyperplasia, follicular cell	0 (0%)	0 (0%)	1 (3%)	0 (0%)
	Avg. severity	0.0	0.0	0.1	0.0
	Adenoma, follicular cell	2 (4%)	0 (0%)	0 (0%)	3 (6%)
	Carcinoma, follicular cell	1 (2%)	0 (0%)	1 (3%)	3 (6%)
	Follicular cell adenoma and carcinoma, combined	3 (6%)	0 (0%)	1 (3%)	5 (10%)
Testes	<i>No. examined</i>	50	50	50	50
	Adenoma, interstitial cell <sup>c</sup>	43 (86%)	47 (94%)	48 (96%)	50 (100%) <sup>d</sup>
	Mesothelioma	0 (0%)	1 (2%)	1 (2%)	2 (4%)
Spleen	<i>No. examined</i>	50	39	38	50
	Leukemia, mononuclear <sup>e</sup>	27 (54%)	31 (79%) <sup>d</sup>	31 (82%) <sup>d</sup>	31 (62%)

Table P-2. Incidence of Selected Proliferative (Neoplastic and Hyperplastic) Lesions  
(Concluded)

		Control (0 g/m <sup>3</sup> )	Low (2 g/m <sup>3</sup> )	Mid (10 g/m <sup>3</sup> )	High (20 g/m <sup>3</sup> )
<u>FEMALES</u>					
Spleen	<i>No. examined</i>	50	22	24	50
	Leukemia, mononuclear	27 (54%)	12 (55%)	11 (46%)	23 (46%)
Mammary Gland	<i>No. examined</i>	49	20	22	47
	Fibroadenoma <sup>c</sup>	0 (0%)	3 (15%) <sup>d</sup>	2 (9%)	5 (11%) <sup>d</sup>

<sup>a</sup>Incidence is significantly different from controls and from the 2 g/m<sup>3</sup> group (Fisher's test).

<sup>b</sup>Incidence is significantly different from controls (Fisher's test). A positive trend toward increased incidence with increasing dose was found with the Cochran-Armitage test.

<sup>c</sup>A positive trend with increasing dose was found with the Cochran-Armitage and Logistic tests. A trend was also detected with Fisher's test with the incidence among the 20 g/m<sup>3</sup> group being significantly increased compared to the control incidence.

<sup>d</sup>Incidence significantly different from controls (Fisher's test).

<sup>e</sup>Trend detected with Fisher's Exact test.

In males, mononuclear leukemia in the spleen demonstrated statistically significant increases in low and mid versus control group, these are judged unlikely to be a result of GMVC exposure (see Table P-5 and Discussion).

Female rats had relatively similar incidences of mononuclear leukemia and across groups. Mammary fibroadenomas were significantly increased in low and high animals, but a surprisingly low incidence in controls complicates the interpretation (see Table P-6, Discussion, Appendices M and N).

Nonproliferative Lesions. Nonproliferative lesions include degenerative and inflammatory changes. Such changes are common in many tissues in aged F344 male and female rats, and their significance in older animals must be interpreted with caution.

Kidneys of male rats exposed to GMVC had significant increases in severity, but not incidence of chronic progressive nephropathy and both mid- and high-level males (Table P-3). Mid- and high-level males also demonstrated a significant increase in incidence (but not severity) of hyaline degeneration of olfactory epithelium in nasal section 2 (located at the level of the incisive papilla). There was a positive concentration-dependent trend toward degeneration

in the olfactory epithelium of turbinate 3 (located midway between the incisive papilla and molar teeth).

Table P-3. Nonproliferative Lesion Incidences and Severity Scores - Males

		Control (0 g/m <sup>3</sup> )	Low (2 g/m <sup>3</sup> )	Mid (10 g/m <sup>3</sup> )	High (20 g/m <sup>3</sup> )
Kidney	<i>No. examined</i>	50	50	50	50
	Nephropathy, chronic	44 (88%) <sup>a</sup>	47 (94%)	50 (100%)	46 (92%)
	Avg. severity	1.9	2.1	2.6 <sup>b</sup>	2.7 <sup>b</sup>
Nose/Turbinate 2	<i>No. examined</i>	50	50	50	50
	Degeneration, hyaline - olfactory epithelium	0 (0%)	5 (10%)	7 <sup>c</sup> (14%)	6 <sup>c</sup> (12%)
	Average severity	0.0	0.2	0.2	0.2
Nose/Turbinate 3	<i>No. examined</i>	50	50	50	50
	Degeneration, hyaline - olfactory epithelium	2 (4%)	1 (2%)	7 (14%)	7 (14%) <sup>d</sup>
	Average severity	0	0	0.2	0.3
Nose/Turbinate 4	<i>No. examined</i>	50	50	50	50
	Degeneration, hyaline - olfactory epithelium	0	0	1 (2%)	1 (2%)
	Average severity	0	0	0	0

<sup>a</sup>Percentage affected is in parentheses adjacent to incidence.

<sup>b</sup>Significantly higher than controls at 0.05 level using Kolmogorov-Smirnov one-tailed test.

<sup>c</sup>Significantly different from controls at 0.05 level using Fisher's exact two-tailed test.

<sup>d</sup>Positive concentration-dependent trend by Cochran-Armitage and logistic tests.  $p = 0.054$  by Fisher's exact (no group comparisons made).

As in males, high-level GMVC-exposed female rats demonstrated a significant increase in severity (but not incidence) of chronic progressive nephropathy (Table P-4). Mid- and high-level females had a significantly increased incidence (but not severity) of hyaline degeneration of respiratory epithelium in nasal turbinate section 2.

Table P-4. Nonproliferative Lesion Incidences and Severity Scores - Females

		Control (0 g/m <sup>3</sup> )	Low (2 g/m <sup>3</sup> )	Mid (10 g/m <sup>3</sup> )	High (20 g/m <sup>3</sup> )
Kidney	<i>No. examined</i>	50	20	21	50
	Nephropathy, chronic	42 (84%) <sup>a</sup>	17 (85%)	15 (71%)	43 (86%)
	Average severity	1.0	1.0	1.0	1.5 <sup>b</sup>
Nose/Turbinates 2	<i>No. examined</i>	50	50	50	50
	Degeneration, hyaline - respiratory epithelium	0 (0%)	1 (2%)	7 <sup>c</sup> (14%)	6 <sup>c</sup> (12%) <sup>d</sup>
	Average severity	0.0	0.0	0.3	0.2

<sup>a</sup>Percentage affected is in parentheses adjacent to incidence.

<sup>b</sup>Significantly higher than controls at 0.05 level using Kolmogorov-Smirnov one-tailed test.

<sup>c</sup>Significantly different from controls at 0.05 level using Fisher's exact two-tailed test.

<sup>d</sup>Positive concentration-dependent trend by Cochran-Armitage and logistic tests.  $p = 0.054$  by Fisher's exact (no group comparisons made).

#### Lesions Showing Statistical Significance, but Judged Not Likely Due to GMVC Exposure

Other proliferative and nonproliferative lesions occurred which were not clearly significant or were judged to have confounding factors which must be considered in interpretation. For completeness, these lesions are listed for males (Table P-5) and females (Table P-6). Some findings were decreased in exposed animals compared to controls, these are not generally discussed.

Some general notes are warranted:

- 1) A number of diagnoses which appear as statistically significant are confounded by the fact that the tissues were only examined if grossly abnormal. This is particularly true in low- and mid-level animals. For example, liver and uterus were examined histologically in low- and mid-level animals only if a gross lesion was detected. Thus, the incidence of "leukemia, monocytic" and "polyp, endometrial stromal" was skewed upward by a protocol driven sampling bias. For the purpose of comments in the tables below, this will be termed "gross lesion sampling bias."
- 2) The incidence data for the diagnosis of "leukemia, mononuclear" should be considered only for the spleen. This is typically accepted as the tissue of origin of this hematopoietic neoplasm (also termed large granular lymphocytic leukemia,

Fischer rat leukemia, monocytic leukemia, etc.) in F344 rats, and the lesion was called in the spleen any time it occurred in other tissues. Incidence data for this diagnosis in other organs are often spurious because some tissues were examined only if abnormal. This is particularly true in low- and mid-level group animals which had a more limited routine tissue set (“gross lesion sampling bias”).

Table P-5. Lesions Judged Not Attributable to GMVC Exposure - Males

Tissue	Diagnosis	Statistical Finding (Group)	Statistical Test <sup>a</sup>	Comments
Adrenal Gland	Hyperplasia, medullary, focal	Trend to increase	C-A, Logistic	Increase was not significant versus controls (Fisher’s) and there is no evidence of an increase in benign or malignant tumors in exposed animals.
Mammary Gland	Hyperplasia, lobular	Trend to increase	C-A	Increase was not significant versus controls (Fisher’s) and there is no evidence of an increase in benign or malignant tumors in exposed animals.
Nose/ Turbinates 3	Degen., hyaline-olfactory epithelium	Trend to increase	C-A, Logistic	Increase was not significant versus controls (Fisher’s), but is complementary to the significant increase seen in nasal section 2.
Spleen	Leukemia, mononuclear	Increase (low, mid)	Fisher’s	High and variable incidence is expected, increase was not significant in highs. A corresponding increase among females was not present.

<sup>a</sup>C-A = Cochran-Armitage

Table P-6. Lesions Judged Not Attributable to GMVC Exposure - Females

Tissue	Diagnosis	Statistical Finding (Group)	Statistical Test <sup>a</sup>	Comments
Brain	Compression	Increase (low, mid)	Fisher's	Relatively low incidence among control females renders interpretation problematic (Note: this lesion typically results from pituitary gland tumors and correlates with those findings, see comments for that lesion below).
Liver	Hepatodiaphragmatic nodule	Increase (low)	Fisher's	Relatively common congenital malformation (control incidences reported from 1–11% <sup>b</sup> ), can be affected by gross lesion sampling bias.
Liver	Hyperplasia, biliary	Trend to decrease	Logistic	Significance only achieved with Logistic test. Biological significance uncertain, deemed unlikely.
Lung	Hyperplasia, alveolar epithelial, focal	Trend to decrease	C-A, Logistic	Biological significance uncertain, deemed unlikely.
Mammary Gland	Fibroadenoma	Increase (low, high); Trend to increase	Fisher's, C-A	Control incidence of 0% in this study remarkably low (reports from ~27–40% <sup>b</sup> ), rendering interpretation of significance problematic.
Pituitary Gland	Adenoma, pars distalis	Increase (low, mid)	Fisher's	Relatively low incidence among control females renders interpretation problematic. Common neoplasm with historical control incidence high (~30%, ranges from 14-60% <sup>b</sup> ), high males show a minor decrease in incidence. Biological significance uncertain, deemed unlikely.
Uterus	Polyp, endometrial stromal	Increase (low, mid)	Fisher's	Gross lesion sampling bias, no evidence of increase in other uterine hyperplasia, benign or malignant tumors, control incidence rather low (reports from 11–37% <sup>c</sup> ). These factors render interpretation of significance problematic.

<sup>a</sup>C-A = Cochran-Armitage

<sup>b</sup>Boorman et al., 1990b; Haseman et al., 1998

<sup>c</sup>Haseman et al., 1998; Leininger and Jokinen, 1990

## **DISCUSSION**

### Proliferative Lesions

Benign tumors of the kidney and testes in males are the proliferative lesions documented most clearly in rats exposed via inhalation to GMVC in this study.

Adenomas of renal tubule epithelial cells are relatively uncommon background lesions in F344 rats, with an average incidence in males of 1.0% (range 0–4%) in NTP study controls (Haseman et al., 1998). The lack of a typical exposure concentration response in this study is difficult to resolve, but the significantly increased incidence in mid- (12%) and increased incidence in high- (4%) level males is presumed to have resulted from GMVC exposure. Additionally there was a low incidence of renal tubule carcinoma in low- (2%) and high- (2%) level males which was not statistically different from controls. Combining adenomas and carcinomas for analysis (controls 0%, low 2%, mid 10% and high 6%) maintained the significant increase in tumors in the mid-dose group and yielded a significant positive exposure-related trend. These results are consistent with findings of an increased incidence of combined renal adenomas and carcinomas in the Baseline Gasoline Vapor Condensate Study (FY01-027).

Given the increased severity of chronic progressive nephropathy in mid- and high-level males, a plausible explanation for the increase in renal tubule tumors may be a sustained increase in cell turnover/proliferation and subsequent tumor induction via epigenetic mechanisms of carcinogenesis in male rats, including damage related to alpha-2u globulin overload (Hard, 1998; Baetcke et al., 1991). Previous studies with wholly vaporized gasoline, MTBE, and related compounds have also documented increased nephropathy in male rats, and increases in renal tubular adenomas and carcinomas (MacFarland et al., 1984; Medinsky et al., 1999; Bird et al., 1997). Further consideration of the nonproliferative, but potentially relevant lesion of chronic progressive nephropathy is presented below and under the “Nonproliferative Lesions” discussion.

The increase in renal tubule adenomas and carcinomas in males may be related to the increased severity of chronic progressive nephropathy through a sustained increase in tubule epithelial cell turnover, a recognized occurrence in male rats (Hard, 1998). For compounds inducing renal tumors in male rats through increased alpha-2u globulin accumulation and subsequent increased renal tubule cell turnover, the human health relevance of the mechanism

and thus the tumors is often regarded as suspect (Baetcke et al., 1991; Hard, 1998; Hard and Khan, 2004). Alpha-2u globulin nephropathy is a plausible mechanism for GMVC related renal adenomas and carcinomas based on other MTBE and similar compound study reports (and including the results of a 13-week unpublished study on gasoline vapor condensate without MTBE conducted at LRRRI). In F344 male rats after approximately 1 year of age, alpha-2u globulin overload nephropathy may be masked by age-related chronic progressive nephropathy (CPN), since both forms of nephropathy share similar if not identical diagnostic hallmarks. The effect of alpha-2u globulin overload nephropathy typically manifests itself in increased severity, rather than incidence, since essentially all males surviving past 1 year of age will develop CPN. Note that GMVC also induced increased severity of nephropathy in females at the highest dose, although via a different mechanism since alpha-2u globulin overload is male rat specific.

Squamous cell carcinomas (SCC) present in nasal sections of males [animal incidences of 1/50 (2%), 2/50 (4%), 0/50 (0%) and 2/50 (4%)] were judged to be of oral origin in all cases. The low incidences and presence of this neoplasm in a control male render any relationship to exposure difficult to discern in this study. Historical control incidences of this tumor in NTP inhalation studies are low (~0.6%). However, a large study with cigarette smoke conducted at this facility in the early 1990's had an incidence of 0/118 (0%) squamous cell carcinomas of oral origin in males and 3/119 (2.5%) in females. No tumors were of nasal origin. While comparison between this study and the concurrent BGVC study is largely done in the GMVC main report, note that the BGVC study had none of these tumors (0/50) in control males but one (1/50) in control females. In the BGVC, there was a trend for significant increase in squamous cell carcinomas in males, but no group differences by the Fisher's Exact Test. Nonetheless, a minor but relatively consistent increase in incidence in exposed animals is present in both studies. Clearly the whole body method of inhalation exposure has the potential to result in some degree of exposure directly to the oral cavity in addition to the systemic exposure from inhalation (from grooming, etc.).

Interstitial (Leydig) cell adenomas of the testes are very common lesions in male F344 rats, with average reported incidences up to 89% or even 100% in 2-year studies (Haseman et al., 1998; Boorman et al., 1990c). Incidence of this benign tumor was similarly high in all groups in this study as well, but the incidence in high-level males was significantly increased, and an exposure concentration response was present. While within this study with GMVC the data

suggest a causal relationship between exposure and testicular interstitial adenomas, the relationship between treatment with MTBE and induction of testicular interstitial adenomas is on the whole more equivocal, since background incidence of this tumor is quite variable and usually extremely high [(NTP control incidence for air inhalation controls: for NIH-07 diet avg. = 70.1% with range of 46% to 90%; for NTP-2000 diet avg. = 92.1% with range of 82% to 98%), and control incidence in the concurrently run Baseline Gasoline Vapor Condensate chronic study (LRRI study number FY01-027) was 48/50 (96%)]. Other MTBE toxicity studies have documented increases in testicular interstitial cell adenomas (Bird et al., 1997; Belpoggi et al., 1995). However, in a recent review of the mechanisms of MTBE induced carcinogenicity, the overall evidence for MTBE induction of testicular interstitial cell adenoma was considered to be equivocal (Cruzan et al., 2007). Note that the human health relevance of interstitial cell tumors in rats has been called into question suggesting little predictive value for humans (Prentice and Meikle, 1995; Cook et al., 1999).

Leukemia, a well-documented feature of old age in F344 rats, did not appear to be enhanced by GMVC exposure. Results for spleen, the defining organ for this disease, are shown for males and females in Table P-2. In males, the incidences of leukemia in the low- and mid-GMVC levels are greater than controls (Fisher's test). However, there was no overall significant trend with exposure concentration as determined by the Cochran-Armitage and logistic tests, and the incidence of leukemia in high-level males was not different from controls (Fisher's test). The incidences of leukemia in GMVC-exposed females were similar to or lower than control but not significantly different (Table P-2).

Mammary gland fibroadenoma was significantly increased in low- and high-level females (Tables P-2 and P-6). Interpretation of this finding is problematic due to the atypically low control incidence of 0% in control females. Control incidences for this lesion have been reported to range from 27–40% (Boorman et al., 1990b). The control incidence in the parallel BGVC study (LRRI study number FY01-027) was 4/49 (8%). Additionally, increases in this lesion have not been observed in previous studies with neat MTBE or wholly vaporized gasoline (Cruzan et al., 2007; MacFarland et al., 1984). Therefore, it is judged unlikely that the increased incidence in female mammary gland fibroadenoma was treatment-related.

### Nonproliferative Lesions

Males. Chronic progressive nephropathy (CPN) is the diagnostic terminology for an entity in rats comprised of a constellation of changes commonly affecting the kidneys of F344 rats. Lesions in male rats appear earlier and are routinely more severe than those in females (Montgomery and Seely, 1990). Renal lesions typically consist of tubular degeneration and regeneration, proteinaceous casts, tubular atrophy and dilatation, interstitial fibrosis, basement membrane thickening and glomerulosclerosis depending on the severity. The severity scoring for this lesion is described in a previous section.

The increased average severity score for CPN in mid- and high-level males is judged to be a consequence of GMVC exposure. It may reflect damage resulting from increased alpha-2u globulin associated with hydrocarbon nephropathy (HN). Some classic hallmarks of hydrocarbon exposure—including the presence of brightly eosinophilic cytoplasmic droplets within tubular epithelium and granular casts/linear mineralization in the outer stripe of the medulla—were not apparent even in high-level males (while regions of cytoplasmic eosinophilic droplets occurred, they were similar between controls and exposed and not judged representative of HN). As discussed below however, the absence of these hallmarks is not unexpected in kidneys from aged rats.

Hyaline droplet or protein accumulation in shorter term MTBE studies is reported (Medinsky, 1999; Lington et al., 1997; Bird et al., 1997), but the change is not necessarily noted in kidneys from chronic exposures (Bird et al., 1997; Rudo, 1995). It is noteworthy that a chronic t-butyl alcohol exposure study conducted by the NTP also lacks a specific diagnosis of “hyaline droplet nephropathy,” although such a diagnosis is made during a shorter term (13 week) exposure study (NTP, 1995). Hyaline droplet accumulation is commonly seen with hydrocarbon exposure, and might be expected with GMVC inhalation (Gopinath et al., 1987). Such a “hydrocarbon nephropathy” may have occurred as an earlier lesion which was masked/obscured in these chronically exposed animals by the progression of CPN. There is also some evidence that aged male rats are much less sensitive to hydrocarbon nephropathy and that production of the major protein constituent of hyaline droplets, alpha-2u globulin, is greatly decreased in old rats (Murty et al., 1988). In addition to renal lesions of hyaline droplet formation, increased tubular regeneration/proliferation and CPN have been previously reported

in male rats as a result of MTBE and similar compound exposure (Medinsky et al., 1999; Lington et al., 1997; Bird et al., 1997; Clary, 1997; Borghoff et al., 2001).

The human health significance of the chronic progressive nephropathy of male rats associated with accumulation of hyaline droplets containing alpha-2u globulin is suspect. It and the subsequent development of renal tubule adenomas are often considered male rat specific and thus not significant for humans (Greaves, 2000; Baetcke et al., 1991; Hard, 1998) though opinions differ (Melnick, 1992). As previously noted, the typical lesions of hyaline droplet nephropathy were not documented in this study at the chronic timepoints examined, but this is not unexpected since diagnostic hallmarks (primarily linear mineralization) to suggest HN at chronic timepoints and with severe overlying CPN are limited. It should be noted that the severity of chronic progressive nephropathy was increased in high-level females which are not susceptible to typical alpha-2u globulin related nephropathy. This suggests the possibility that more than one mechanism may be important in the development of chronic progressive nephropathy in response to GMVC.

Increased hyaline degeneration of nasal epithelium (typically olfactory and respiratory) characterized by the accumulation of hyaline droplets/globules is a common, nonspecific finding in aged rats and is increased in response to a number of toxicants (Boorman et al., 1990d; Gopinath et al., 1987). Mid- and high-level males had significant increases in incidence relative to that seen in control animals in nasal section 2, and there was an exposure concentration response in turbinate 3 for males. The overall incidence was relatively low, and the severity of the lesion ranged from minimal to moderate in most exposure groups. While the lesion is likely exposure related, the significance of this common, minor change by itself is uncertain.

Females. Kidneys of high-level female rats cumulatively demonstrated a slight increase in overall severity score of chronic progressive nephropathy. Though the minor severity difference renders interpretation less clear than that in males, the increased severity of CPN in high-level females is judged to be an effect of GMVC exposure. A lesser severity of CPN is typical in female F344 rats compared to males (Montgomery and Seely, 1990). Reports of MTBE effects on kidneys in female rats vary. Some do not report significant differences in female renal lesions (Lington et al., 1997), others report increased bromodeoxyuridine labeling of tubular epithelium or increased CPN incidence and severity (Medinsky et al., 1999; Bird et al., 1997; Clary, 1997).

As noted for the males, hyaline droplet accumulation in olfactory and respiratory nasal epithelia is a common, nonspecific response to toxicants in rodents. While the lesion is likely exposure related, the significance of this common, minor change by itself is uncertain.

## HISTOPATHOLOGY SUMMARY

Statistically significant increases in GMVC exposure related lesions were seen in both male (kidney, testes, nasal epithelia) and female (kidney, nasal epithelia) F344 rats. Exposure related proliferative lesions occurred only in males and consisted of renal tubule adenomas (and combined adenomas and carcinomas) and testicular interstitial (Leydig) cell adenomas. The increase in renal tubule adenomas was significant only in mid-level group males relative to controls (Fisher's exact test,  $p \leq 0.05$ ) and lacked significance using trend tests (Cochran-Armitage and Logistic tests,  $p \leq 0.05$ ). Combining renal tubule adenomas and carcinomas maintained the significant increase in mid-level males and also resulted in a significant positive trend with increased exposure. Renal tubule neoplasms in rats are influenced by epigenetic mechanisms related to CPN and this must be taken into account in this study. Increases in testicular interstitial cell adenomas were statistically significant relative to controls in high-level animals (Fisher's exact test,  $p \leq 0.05$ ) and as an exposure related trend (both Cochran-Armitage and Logistic tests,  $p \leq 0.05$ ). As noted in the discussion section, the variable and typically very high background incidence of this tumor in aged rats must be considered on the whole in risk assessment.

Nonproliferative lesions related to GMVC exposure were present in kidneys (as an increase in severity of chronic progressive nephropathy) and nasal epithelia (as hyaline degeneration) of both genders. Both mid- and high-level males had significant increases in the *severity, but not incidence* of chronic progressive nephropathy relative to controls (Kolmogorov-Smirnov test,  $p \leq 0.05$ ). The incidence of hyaline degeneration of olfactory epithelium (nasal turbinate section 2) was significantly increased in male animals of mid- and high-level groups (Fisher's exact test,  $p \leq 0.05$ ), and increased as an exposure related trend (Cochran-Armitage and Logistic tests,  $p \leq 0.05$ ). An exposure-related trend for olfactory epithelial degeneration was also present in turbinate 3 for males. Kidneys of females exposed to GMVC did not have an increased incidence (Fisher's exact test,  $p \leq 0.05$ ) or exposure related trend to increased incidence (Cochran-Armitage and Logistic tests,  $p \leq 0.05$ ) of chronic progressive nephropathy, but did demonstrate a significant increase in *severity* of this lesion in high-level females

(Kolmogorov-Smirnov test,  $p \leq 0.05$ ). Nasal cavities of mid- and high-group females had an increased incidence of hyaline degeneration of respiratory epithelium (nasal section 2) relative to controls (Fisher's exact test,  $p \leq 0.05$ ), and the exposure-related trend for this change was also significant (Cochran-Armitage and Logistic tests,  $p \leq 0.05$ ).

Hyaline degeneration of olfactory and respiratory epithelium is characterized by the accumulation of homogeneous, hyaline eosinophilic globules. Small numbers of cells with these globules are common in aging rodents and in response to toxicants. The significance of the minor nasal epithelial changes noted in this study is uncertain.

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