

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

C Number: C61654
Lock Date: 09/30/1992
Cage Range: All
Date Range: All
Reasons For Removal: All
Removal Date Range: All
Treatment Groups: All
Study Gender: Both
PWG Approval Date: 10/05/1994

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 2	TRT#: 3	SEX: Male	DAY ON TEST: 199
	DOSE: 0.0MG/M3LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-Q002

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL			
* Kidney	* Lymph Node, Mediastinal	* Nose	

INSUFFICIENT TISSUE			
* Lymph Node, Bronchial			

OBSERVATIONS			
* Lung	Inflammation	Chronic Active, Minimal	
Urinary Bladder	Calculus Micro Observation Only		
[Calculus Micro Observation Only TGLS = 1-7]			

PRIMARY CAUSE OF DEATH	-		
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

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Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 3	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 361 HISTO: RZ116/Q003
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hyperplasia Vacuolization Cytoplasmic	Focal, Minimal Moderate
* Bone Marrow		Atrophy	Moderate
Note: atrophy & necrosis fem. shaft, not epiphysis			
* Heart	Atrium	Cardiomyopathy Thrombosis	Mild
Note: small thrombus in left atrium [Thrombosis TGLS = 11-3]			
* Intestine Large, Cecum		Inflammation	Mild
[Inflammation TGLS = 7-8]			
* Intestine Large, Colon		Inflammation	Mild
[Inflammation TGLS = 7-8]			
* Kidney		Nephropathy	Minimal
* Larynx		Inflammation	Mild
* Liver		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 5-4,15,16,4-4,15,16]			
* Lung		Histiocytic Sarcoma	
Note: tumor cells mainly in vessels			
* Lymph Node, Bronchial		Hyperplasia	Plasma Cell, Moderate
* Lymph Node, Mandibular		Inflammation	Mild
[Inflammation TGLS = 10-2]			
* Lymph Node, Mediastinal		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 10-2]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 3	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 361 HISTO: RZ116/Q003
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ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric [Inflammation TGLS = 10-2]		Inflammation	Moderate
* Pancreas [Atrophy TGLS = 3-7]		Atrophy	Mild
* Sem Ves Note: not distended w/ fluid=not a lesion			
* Skin Note: a phlebitis w/ cellulitis [Inflammation TGLS = 1-17,10]	Dermis	Inflammation	Mild
* Spleen [Hematopoietic Cell Proliferation TGLS = 2-3]		Hematopoietic Cell Proliferation	Moderate
* Stomach, Forestomach		Ulcer	Marked
* Thymus [Degeneration TGLS = 9-2]		Degeneration	Moderate

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Histeocytic sarcoma w/ prim.effects in liver

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 4	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 608 HISTO: RZ116/004
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Trachea

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 4-1]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Necrosis	Mild
Note: massive lobular liver necrosis			
[Necrosis TGLS = 2-4]			
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitialium	Infiltration Cellular	Mild
[Infiltration Cellular TGLS = 6-5,6]			
* Nose	Olfactory Epi	Inflammation	Chronic Active, Minimal
	Pars Distalis	Mineralization	Focal, Moderate
* Pituitary Gland		Adenoma	
Note: DX based on regular cytology, lack of anaplasia			
[Adenoma TGLS = 5-14]			
* Preputial Gland		Inflammation	Marked
Note: W/ cellulitis			
[Inflammation TGLS = 1-9]			
* Testes	Interstit Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 4	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 608 HISTO: RZ116/004
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ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus		Degeneration	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Urinary Bladder		Calculus Micro Observation Only	
[Calculus Micro Observation Only TGLS = 3-8]			

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=pituitary adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 5	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Scheduled Sacrifice	DAY ON TEST: 458 HISTO: RZ116/Q005
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Liver |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |

OBSERVATIONS

- | | | | |
|---------------------------|----------------|----------------------------|---------------------|
| * Intestine Large, Rectum | | Parasite Metazoan | |
| * Kidney | | Nephropathy | Minimal |
| * Lung | Alveolus | Hyperplasia | Macrophage, Minimal |
| | Interstitium | Infiltration Cellular | Minimal |
| * Testes | Interstit Cell | Adenoma | |
| [Adenoma TGLS = 1-15] | | | |
| * Urinary Bladder | | Calculus Gross Observation | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 6

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q006

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Brain	Coagulating Gland	* Epididymis
* Esophagus	Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone		Hyperostosis	
Note: femur			
* Bone Marrow		Fibrosis	Moderate
* Heart		Cardiomyopathy	Minimal
Note: fixation artifacts here			
* Intestine Large, Rectum		Parasite Metazoan	
* Islets, Pancreatic		Adenoma	
		Leukemia Mononuclear	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
[Nephropathy TGLS = 7-3]			
* Liver		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Marked
	Hepatocyte	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-4,17]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
* Pituitary Gland		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-14]			
* Skin		Keratoacanthoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 6	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 736 HISTO: RZ116/Q006
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ORGAN AND ACCOUNTABLE SITE STATUS

[Keratoacanthoma TGLS = 1-16]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-15]			
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
[Hyperplasia TGLS = 10-15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 4,5-21]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH	-
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 7	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 578 HISTO: RZ116/Q007
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

* Larynx	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 2-1]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
Note: pale staining parenchymal foci are artifacts			
* Lung	Interstitium	Infiltration Cellular	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Preputial GI			
Note: caseous excretions not excessive=not sign. lesion			
* Testes	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

Animal Note: CO/MSAC=pituitary adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 8	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 594 HISTO: RZ116/Q008
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

* Larynx

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 5-1]			
* Kidney		Nephropathy	Moderate
* Liver		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitium	Infiltration Cellular	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Preputial Gland		Ectasia	Moderate
[Ectasia TGLS = 3-9]			
* Skin		Cyst Epithelial Inclusion	
	Subcut Tiss	Fibrosarcoma	
[Cyst Epithelial Inclusion TGLS = 1-15]			
[Fibrosarcoma TGLS = 1-16]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 594

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q008

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=skin tumors + pituitary adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 9	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 565 HISTO: RZ116/Q009
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Necrosis Vacuolization Cytoplasmic	Minimal Mild
[Necrosis TGLS = 3-14]			
* Adrenal Medulla		Hyperplasia	Moderate
* Bone Marrow		Leukemia Mononuclear	
Coagulat GI			
Note: coag.gl & sem.ves=scant fluid but not considered lesion			
Note: was gross lesion really prostate??			
* Heart	Atrium	Thrombosis	
[Thrombosis TGLS = 7-18]			
* Kidney		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
[Hyperplasia TGLS = 4,5-4,16]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-5,6]			
* Pituitary Gland	Pars Distalis	Adenoma	
Note: marked angiectasis w/ hyperplasia			
[Adenoma TGLS = 10-14]			
* Prostate		Inflammation	Marked
Note: inflammation is an abcess			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 9	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 565 HISTO: RZ116/Q009
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ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 1-3,15]		Leukemia Mononuclear	
* Stomach, Forestomach [Hyperkeratosis TGLS = 11-7]		Hyperkeratosis	Moderate
* Testes	Germinal Epith Interstit Cell	Degeneration Hyperplasia	Moderate Minimal
* Thymus		Degeneration	Moderate

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q010

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
		Inflammation	Moderate
Note: inflammation of aorta nad surrounding tissues			
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 4-3]			
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
* Lung	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
		Metaplasia	Osseous, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-3]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q010

ORGAN AND ACCOUNTABLE SITE STATUS

Germinal Epith

Degeneration

Moderate

[Adenoma TGLS = 1,5-16]

[Degeneration TGLS = 2-16]

* Thyroid Gland

C Cell

Adenoma

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q011

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Liver |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Mammary Gland | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | | |

OBSERVATIONS

- | | | | |
|-----------------------------|----------------|----------------------------|-------------------------|
| * Kidney | | Nephropathy | Minimal |
| * Lung | Interstitial | Infiltration Cellular | Minimal |
| * Nose | | Inflammation | Chronic Active, Minimal |
| * Preputial Gland | | Inflammation | Mild |
| [Inflammation TGLS = 1-9] | | | |
| * Testes | Interstit Cell | Adenoma | |
| | Interstit Cell | Hyperplasia | Moderate |
| * Urinary Bladder | | Calculus Gross Observation | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 559

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q012

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Compression	
[Compression TGLS = 10-1]			
Eye		Inflammation	Marked
Note: conjunctivitis w/ ulceration			
[Inflammation TGLS = 1,2-16,17]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-5,6]			
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
* Lymph Node, Mediastinal		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
Note: marked angiectasis in hyperplasia			
[Hyperplasia TGLS = 11-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 12	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 559 HISTO: RZ116/Q012
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ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland [Ectasia TGLS = 3,4-9]		Ectasia	Moderate
* Spleen [Leukemia Mononuclear TGLS = 6,7-3,15]		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=marked eye infection

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 696

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q013

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Marked
* Bone Marrow		Necrosis	Mild
* Heart	Atrium	Cardiomyopathy	Mild
		Thrombosis	
	Note: thrombi involve left atrium and valves [Thrombosis TGLS = 6-17]		
* Kidney		Infarct	Marked
		Nephropathy	Moderate
	Note: rgt KD nearly entirely infarcted, thrombi in major arteries [Infarct TGLS = 5-3,15]		
* Liver	Bile Duct	Angiectasis	Marked
		Hyperplasia	Moderate
		Leukemia Mononuclear	
	Hepatocyte	Necrosis	Marked
	[Necrosis TGLS = 4-4,16]		
* Lung		Leukemia Mononuclear	
* Nose		Leukemia Mononuclear	
		Thrombosis	Marked
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 696

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q013

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 3-3]	Pars Distalis	Hyperplasia Leukemia Mononuclear	Minimal
* Stomach, Glandular [Necrosis TGLS = 7-7]		Necrosis	Focal, Moderate
* Testes [Adenoma TGLS = 1,2-18]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

Animal Note: leukamia not marked, unlikely to cause all the infarcts

Animal Note: many organs w/ foci of necrosis, cause=?

Animal Note: COD=Renal infarction

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 14

TRT#: 3

SEX: Male

DAY ON TEST: 199

DOSE: 0.0MG/M3LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-Q014

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lung

* Lymph Node, Bronchial

* Lymph Node, Mediastinal

* Nose

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q015

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Trachea

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Marked
		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 11-19]	
* Intestine Large, Cecum		Inflammation	Mild
* Intestine Large, Rectum		Inflammation	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
		[Nephropathy TGLS = 9-3]	
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 8-4]	
* Lung		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 13-20]	
* Lymph Node, Bronchial		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 12-6,10-2]	
* Lymph Node, Mandibular		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 12-6,10-2]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q015

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 12-6,10-2]	Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 12-6,10-2]	Leukemia Mononuclear	
* Nose	Inflammation	Chronic Active, Minimal
* Pancreas	Leukemia Mononuclear	
* Pituitary Gland	Leukemia Mononuclear	
* Sem Ves Note: TGL "ENLARGED"=fluid-filled=not significant lesion		
* Skin [Keratoacanthoma TGLS = 1-18]	Keratoacanthoma	
* Spleen [Leukemia Mononuclear TGLS = 2,3,4-15,16,17]	Leukemia Mononuclear	
* Testes [Adenoma TGLS = 6,7-22]	Bilateral, Interstit Cell Adenoma	
* Thymus	Leukemia Mononuclear	
* Thyroid Gland	Leukemia Mononuclear	
* Urinary Bladder	Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 573

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q016

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Degeneration	Cystic, Minimal
Note: minimal lesions, should not cause gross lesions			
* Lung	Interstitialium	Infiltration Cellular Inflammation	Minimal Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin		Fibroma	
[Fibroma TGLS = 1-16]			
* Testes	Interstit Cell	Adenoma	
* Urinary Bladder		Calculus Micro Observation Only	
[Calculus Micro Observation Only TGLS = 2-8]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Fibroma of skin

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q017

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-4]		
* Lung	Interstitial	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
* Nose	Olfactory Epi	Atrophy	Minimal
	Note: atrophy is focal, not like Ni-induced		
* Pancreas		Atrophy	Mild
* Parathyroid Gland		Adenoma	
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Adenoma	
	Note: Adenoma based on size but little anaplasia		
	[Adenoma TGLS = 1-9]		
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q017

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibrosis TGLS = 5-16]

[Leukemia Mononuclear TGLS = 4-15]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2,3-19]

Tongue

Squamous Cell Papilloma

[Squamous Cell Papilloma TGLS = 7-17]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 624

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q018

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

* Larynx

OBSERVATIONS

* Adrenal Cortex		Mesothelioma Nos	
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Mesothelioma Nos	
* Intestine Small, Duodenum		Mesothelioma Nos	
* Intestine Small, Ileum		Mesothelioma Nos	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
[Pigmentation TGLS = 7-3]			
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
* Lung		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-5,6]			
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
Mesentery		Mesothelioma Nos	
[Mesothelioma Nos TGLS = 4-16]			
* Pancreas		Mesothelioma Nos	
[Mesothelioma Nos TGLS = 6-7]			
* Skin		Keratoacanthoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 624

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q018

ORGAN AND ACCOUNTABLE SITE STATUS

[Keratoacanthoma TGLS = 11-15]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-3]

* Stomach, Forestomach

Mesothelioma Nos

* Stomach, Glandular

Mesothelioma Nos

* Testes

Bilateral, Interstit Cell

Adenoma

Tunic

Mesothelioma Nos

[Adenoma TGLS = 3,5-18]

* Thymus

Degeneration

Moderate

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=leukemia & abdominal mesothelioma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 664

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q019

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
	[Hyperplasia TGLS = 4-4]		
* Lung		Leukemia Mononuclear	
		Metaplasia	Osseous, Minimal
	[Leukemia Mononuclear TGLS = 8-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 7-6]		
* Pituitary Gland	Pars Distalis	Cyst	
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-15,2-3,15]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-18]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 664

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q019

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: C0/MSAC=mo,onuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 20	TRT#: 3	SEX: Male	DAY ON TEST: 199
	DOSE: 0.0MG/M3LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-Q020

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney Urinary Bladder	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Nose
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OBSERVATIONS

* Lung	Interstitial	Infiltration Cellular	Minimal
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PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 691

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q021

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	Coagulating Gland	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

INSUFFICIENT TISSUE

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex [Degeneration TGLS = 4-14]		Degeneration	Cystic, Moderate
* Adrenal Medulla		Hyperplasia	Moderate
* Bone Marrow		Atrophy	Mild
* Brain Note: several septic emb.in cerebellum, little inflam.		Embolus	Minimal
* Heart Note: septic w/ valvular endocarditis		Cardiomyopathy	Moderate
		Embolus	Marked
		Inflammation	Moderate
* Kidney Note: septic emboli [Nephropathy TGLS = 5-3]		Embolus	Mild
		Inflammation	Moderate
		Nephropathy	Marked
* Liver [Degeneration TGLS = 3-4]	Centrilobular	Atrophy	Moderate
		Basophilic Focus	
		Degeneration	Cystic, Mild
* Lung		Embolus	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 691

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q021

ORGAN AND ACCOUNTABLE SITE STATUS

Alveolus
Interstitium

Hyperplasia
Infiltration Cellular

Macrophage, Minimal
Mild

Note: TGL=congestion as part of embolic process

Note: 1 large septic embolus in branch pul. artery slide 6

[Embolus TGLS = 9-5,6]

[Infiltration Cellular TGLS = 9-5,6]

* Lymph Node, Mesenteric

[Atrophy TGLS = 6-8]

Atrophy

Moderate

* Pituitary Gland

[Adenoma TGLS = 10-14]

Pars Distalis

Adenoma

* Spleen

Atrophy

Moderate

Fibrosis

Moderate

Note: fibrosis is focal

[Fibrosis TGLS = 2-15]

* Testes

[Adenoma TGLS = 1-18]

Interstit Cell

Adenoma

* Thymus

[Degeneration TGLS = 8-2]

Degeneration

Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: MES LN=lymphoid atrophy w/ sinus ectasia=TGL enlarged

Animal Note: COD=septic valvular endocarditis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 373

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q022

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Small, Duodenum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland	* Thyroid Gland
---------------------	-----------------

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Seminal Vesicle		

INSUFFICIENT TISSUE

* Mammary Gland

OBSERVATIONS

* Heart			
Note: source of thoracic blood=thor.tumor, not heart rupture			
Note: no histo evidence of rupture or trauma			
* Kidney		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 1-15]			
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
Skel Muscle			
Note: TGL4=tissue of thoracic wall, see "TNOS"			
* Spleen		Atrophy	Moderate
Tissue NOS	Thoracic	Fibrosarcoma	
Note: TGL4&5=tissue of thoracic wall			
[Fibrosarcoma TGLS = 4-18,5-19]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 373

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q022

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: COD=thoracic hemorrhage from thoracic fibrosarcoma

Animal Note: TGL5sternal LN = tissue of thoracic wall, see "TNOS"

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q023

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitium	Infiltration Cellular	Mild
		Leukemia Mononuclear	
Note: foci of fibrosis, 1 focus of acute inflam. [Fibrosis TGLS = 5-16,4-15]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q023

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2,3-18]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 706

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q025

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Marked
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
		Degeneration	Fatty, Marked
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitium	Infiltration Cellular	Minimal
* Mammary Gland		Hyperplasia	Cystic, Mild
* Parathyroid Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 6-14]		
* Stomach, Forestomach		Ulcer	Marked
* Thymus		Degeneration	Marked
* Urinary Bladder		Calculus Gross Observation	
	[Calculus Gross Observation TGLS = 1-8]		

PRIMARY CAUSE OF DEATH

-

Animal Note: MED LN=congestion, hemosiderin, not sign. lesion

Animal Note: CO/MSAC=pituitary tumor

Animal Note: jaundice result of marked hepatic lipidosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 615

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q026

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Nephropathy	Mild
		Pigmentation	Moderate
	[Nephropathy TGLS = 7-3]		
* Liver	Centrilobular	Atrophy	Mild
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 8-16]		
	[Leukemia Mononuclear TGLS = 9-4,16]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-10,10-8]		
* Lymph Node, Mediastinal		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-10,10-8]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-10,10-8]		
* Nose	Olfactory Epi	Atrophy	Minimal
		Inflammation	Chronic Active, Moderate
* Pancreas		Atrophy	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 615

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q026

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 4-7]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5,6-3,15]

* Testes

Bilateral, Interstit Cell

Leukemia Mononuclear

[Adenoma TGLS = 2,3-18]

* Thymus

Adenoma

Degeneration

Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q027

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

INSUFFICIENT TISSUE

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Mild
		Degeneration	Cystic, Minimal
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-4]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Marked
		Leukemia Mononuclear	
[Hyperplasia TGLS = 7-16,8-17]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[Fibrosis TGLS = 4-18]			
[Leukemia Mononuclear TGLS = 3-15,18]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q027

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1,2-20]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q028

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx |
| * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nose | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | | | |

OBSERVATIONS

- | | | | |
|------------------------------|----------------|-------------|----------------|
| * Kidney | | Nephropathy | Minimal |
| * Lung | | Hemorrhage | Acute, Minimal |
| [Hemorrhage TGLS = 3-5] | | | |
| * Testes | Interstit Cell | Adenoma | |
| | Interstit Cell | Hyperplasia | Moderate |
| * Urinary Bladder | | Congestion | Moderate |
| [Congestion TGLS = 1-8,16] | | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 657

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q029

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
	[Leukemia Mononuclear TGLS = 6-3]		
* Liver		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-4]		
* Lung		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 11-5,6]		
Lymph Node	Axillary	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 10-6,13-19,1-10,9-2]		
	[Leukemia Mononuclear TGLS = 10-6,13-19,1-10,9-2]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 10-6,13-19,1-10,9-2]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 10-6,13-19,1-10,9-2]		
* Lymph Node, Mediastinal		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 657

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q029

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 10-6,13-19,1-10,9-2]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-6,13-19,1-10,9-2]			
* Pancreas		Atrophy	Moderate
		Leukemia Mononuclear	
* Seminal Vesicle		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-3,16,4-16]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-21]			
* Thymus		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-2]			
Tissue NOS	Mediastinum	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 12-18]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 683

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q030

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Cyst	
		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Marked
		Pigmentation	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Chronic Active, Moderate
Note: inflammation assoc w/ foreign body			
* Pancreas		Atrophy	Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 683

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q030

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2,3-17]

PRIMARY CAUSE OF DEATH -

Animal Note: hemosiderin in Med LN not a lesion

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q031

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|-----------------------------|---------------------------|----------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| Coagulating Gland | * Epididymis | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Parathyroid Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

MISSING

- * Intestine Large, Rectum

INSUFFICIENT TISSUE

- * Larynx

OBSERVATIONS

- | | | | |
|--|-----------------|-----------------------|-------------------------|
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Marked |
| * Liver | | Basophilic Focus | |
| | | Degeneration | Fatty, Marked |
| | Hepatocyte | Hyperplasia | Minimal |
| | Hepatocyte | Necrosis | Minimal |
| Note: not much wrong, just a little of everything
[Degeneration TGLS = 4-4] | | | |
| * Lung | | Hemorrhage | Acute, Minimal |
| | Alveolus | Hyperplasia | Macrophage, Minimal |
| | Interstitialium | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| Note: one lobe more severe than others | | | |
| * Lymph Node, Bronchial | | Hyperplasia | Lymphoid, Mild |
| * Pancreas | | Atrophy | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 31	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 736 HISTO: RZ116/Q031
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ORGAN AND ACCOUNTABLE SITE STATUS

Note: small, with many anaplastic cells but no invasion * Skin Pinna Note: DX based in anaplasia & invasion of subcutis [Squamous Cell Papilloma TGLS = 1-15] * Testes Bilateral, Interstit Cell [Adenoma TGLS = 2,3-17]	Squamous Cell Papilloma Adenoma
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PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 257

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q032

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Larynx | * Lung |
| * Lymph Node, Bronchial | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Testes | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

INSUFFICIENT TISSUE

- | | |
|---------------------------|-----------------|
| * Intestine Large, Rectum | * Mammary Gland |
|---------------------------|-----------------|

OBSERVATIONS

- | | | |
|-----------------------------|--------------------|----------------------|
| * Heart | Cardiomyopathy | Minimal |
| * Liver | Eosinophilic Focus | |
| * Lymph Node, Mandibular | Hyperplasia | Plasma Cell, Marked |
| [Hyperplasia TGLS = 1-10] | | |
| * Nose | Inflammation | Chronic Active, Mild |
| * Spleen | Atrophy | Marked |
| * Thymus | Degeneration | Marked |
| Tooth | Dysplasia | Marked |

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Malocclusion from dysplasia of upper incisor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 705

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q034

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Heart	Atrium	Thrombosis	
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Marked
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
* Lung		Leukemia Mononuclear	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[Fibrosis TGLS = 4-15]			
[Leukemia Mononuclear TGLS = 3-3,15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1,2-17]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 705

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q034

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 35	TRT#: 3 DOSE: 0.0MG/M3LUNG TOX	SEX: Male DISP: Scheduled Sacrifice	DAY ON TEST: 199 HISTO: RZ116-Q035
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL * Kidney	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Nose
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OBSERVATIONS * Lung	Interstitial	Infiltration Cellular	Minimal
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PRIMARY CAUSE OF DEATH	-		
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 559

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q036

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spinal Cord		Astrocytoma Benign	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2,4-17]			
* Thymus		Degeneration	Moderate
* Urin Bladder			
Note: TGL"dilation"=not a lesion			

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=astrocytoma of spinal cord

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 715

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q037

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Brain | * Epididymis | * Esophagus |
| * Intestine Large, Cecum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Pancreas | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

MISSING

- | | |
|---------------------------|-----------------|
| * Intestine Large, Rectum | * Mammary Gland |
|---------------------------|-----------------|

OBSERVATIONS

- | | | |
|--|-------------------------|-------------|
| * Adrenal Medulla | Hyperplasia | Moderate |
| | Pheochromocytoma Benign | |
| Blood Vessel | Mineralization | Marked |
| Note: many elastic and muscular arteries are mineralized
[Mineralization TGLS = 9-15] | | |
| * Bone | Fibrous Osteodystrophy | |
| * Bone Marrow | Atrophy | Moderate |
| * Heart | Cardiomyopathy | Mild |
| | Mineralization | Marked |
| [Mineralization TGLS = 8-19] | | |
| * Intestine Large, Colon | Mineralization | Moderate |
| [Mineralization TGLS = 7-7,18] | | |
| * Kidney | Mineralization | Moderate |
| | Nephropathy | Marked |
| [Mineralization TGLS = 2-3] | | |
| * Larynx | Inflammation | Mild |
| * Liver | Angiectasis | Marked |
| | Basophilic Focus | |
| | Degeneration | Fatty, Mild |
| | Hyperplasia | Moderate |
| | Bile Duct | |

Note: TGL"dilated bile duct"=not sign. lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 715

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q037

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 4-4,16]			
* Lung		Inflammation Mineralization	Chronic Active, Mild Marked
Note: uremic pneumonia			
[Mineralization TGLS = 10-5,6]			
* Nose		Inflammation	Chronic Active, Mild
* Parathyroid Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
* Stomach, Forestomach		Mineralization	Mild
[Mineralization TGLS = 6-7,5-7]			
* Stomach, Glandular	Epithelium	Mineralization	Marked
[Mineralization TGLS = 6-7,5-7]			
* Testes	Interstit Cell Germinal Epith Interstit Cell	Adenoma Degeneration Hyperplasia	Moderate Moderate
[Adenoma TGLS = 1-20]			
* Thymus		Degeneration	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Nephropathy w/ renal failure

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 599

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q038

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland	* Thymus
-----------------	----------

OBSERVATIONS

* Bone Marrow		Atrophy	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung			
Note: NGL"Red"=not signif. lesion			
* Pancreas		Atrophy	Marked
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Spleen		Leukemia Mononuclear	
Note: one nodule of leukemia cells			
[Leukemia Mononuclear TGLS = 4-15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2,3-17]			

PRIMARY CAUSE OF DEATH

-
Animal Note: reason for clinical ataxia not found
Animal Note: CO/.MSAC=Undetermined

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 521

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q039

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Marked
* Bone Marrow		Fibrosis	Marked
* Heart	Atrium	Thrombosis	
* Kidney	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Mild
* Larynx		Hyperplasia	Mild
* Liver	Bile Duct	Degeneration	Fatty, Marked
		Hyperplasia	Mild
Note: marked centrolobular degeneration, cause=??			
[Degeneration TGLS = 2-4]			
* Lymph Node, Mandibular		Inflammation	Moderate
[Inflammation TGLS = 5-15,4-2]			
* Lymph Node, Mediastinal		Inflammation	Marked
[Inflammation TGLS = 5-15,4-2]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-17]			
* Thymus		Degeneration	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=hepatocellular degeneration w/ liver failure

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 521

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q039

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL"sternal ln" is a mediastinal node

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 713

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q040

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex
Coagulating Gland
* Intestine Large, Colon
* Intestine Small, Jejunum
* Lymph Node, Mediastinal
* Pancreas
* Salivary Glands
* Urinary Bladder

* Bone
* Epididymis
* Intestine Large, Rectum
* Islets, Pancreatic
* Lymph Node, Mesenteric
* Parathyroid Gland
* Stomach, Forestomach

* Bone Marrow
* Esophagus
* Intestine Small, Duodenum
* Larynx
* Mammary Gland
* Preputial Gland
* Stomach, Glandular

* Brain
* Intestine Large, Cecum
* Intestine Small, Ileum
* Lymph Node, Mandibular
* Nose
* Prostate
* Trachea

OBSERVATIONS

* Adrenal Medulla

Hyperplasia
Pheochromocytoma Benign
Cardiomyopathy
Thrombosis

Mild

* Heart

Atrium

[Thrombosis TGLS = 16-22]

Nephropathy
Pigmentation

Mild

* Kidney

Renal Tubule

[Nephropathy TGLS = 15-3]

Degeneration
Eosinophilic Focus
Hepatocellular Adenoma
Hyperplasia
Leukemia Mononuclear

Marked

Mild

* Liver

Bile Duct

[Hepatocellular Adenoma TGLS = 12-18,13-19,10-17]
[Hyperplasia TGLS = 11-4,17,18,19]
[Leukemia Mononuclear TGLS = 14-4]

Fatty, Mild

Moderate

* Lung

[Leukemia Mononuclear TGLS = 17-5,6]

Leukemia Mononuclear

* Lymph Node, Bronchial

Leukemia Mononuclear

* Pituitary Gland

Pars Distalis

Hyperplasia

Moderate

* Seminal Vesicle

Atrophy

Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 713

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q040

ORGAN AND ACCOUNTABLE SITE STATUS

[Atrophy TGLS = 6-9,20]			
* Skin	Tail	Fibroma	
[Fibroma TGLS = 1-21]			
* Spleen		Fibrosis	Marked
		Leukemia Mononuclear	
[Fibrosis TGLS = 3,4,5-3,15,16]			
[Leukemia Mononuclear TGLS = 2-3,15,16]			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Marked
[Adenoma TGLS = 8,9-23]			
[Degeneration TGLS = 7-23]			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
	Follicle	Hyperplasia	Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artifacts on some tissues

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 574

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q041

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Diffuse, Moderate
* Bone Marrow		Inflammation	Granulomatous, Focal, Minimal
Coagulating Gland		Inflammation	Moderate
Note: inflammation assoc. w/ inspissation of secretions			
[Inflammation TGLS = 4-15]			
* Heart		Cardiomyopathy	Mild
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 2-7]			
* Kidney		Nephropathy	Mild
* Liver		Degeneration	Fatty, Minimal
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitium	Infiltration Cellular	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Preputial Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 5-9]			
* Skin	Pinna	Keratoacanthoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 574

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q041

ORGAN AND ACCOUNTABLE SITE STATUS

Note: CaDX=dysplasia & local infiltration
[Keratoacanthoma TGLS = 1-16]

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Squamous Cell Ca of ear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q042

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| Coagulating Gland | * Epididymis | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Bronchial |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|---|---------------------------|-------------------------|-------------------------------|
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| [Pheochromocytoma Benign TGLS = 4-14] | | | |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Marked |
| * Liver | | Basophilic Focus | |
| | | Clear Cell Focus | |
| | Bile Duct | Hyperplasia | Minimal |
| | | Inflammation | Granulomatous, Focal, Minimal |
| [Clear Cell Focus TGLS = 3-15] | | | |
| * Lung | Interstitial | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Plasma Cell, Mild |
| * Nose | | Inflammation | Chronic Active, Mild |
| Note: related to foreign body | | | |
| * Pancreas | | Atrophy | Mild |
| * Testes | Bilateral, Interstit Cell | Adenoma | |
| [Adenoma TGLS = 1,2-17] | | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 553

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q043

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|--------------------------|-------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| Coagulating Gland | * Epididymis | * Esophagus | * Islets, Pancreatic |
| * Larynx | * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

AUTO PRECLUDES DIAG.

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Kidney | |

OBSERVATIONS

- | | | | |
|---|-------------------|--------------------------|----------------------|
| * Adrenal Medulla | | Pheochromocytoma Complex | |
| [Pheochromocytoma Complex TGLS = 3-14,16] | | | |
| * Heart | | Cardiomyopathy | Moderate |
| * Lung | | Hemorrhage | Acute, Minimal |
| | Interstitialium | Infiltration Cellular | Minimal |
| Note: TGL"red"=congestion,hemorrhage=not sign. lesion | | | |
| * Nose | | Inflammation | Chronic Active, Mild |
| Note: Assoc w/ foreign body | | | |
| * Preputial Gland | | Carcinoma | |
| [Carcinoma TGLS = 2-9,1-15] | | | |
| * Skin | | | |
| Note: SKIN TGL is preputial gland Ca | | | |
| * Testes | Interstitial Cell | Adenoma | |
| [Adenoma TGLS = 5-18] | | | |

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Complex pheochromocytoma

Animal Note: contralateral adrenal normal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q044

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
* Lung		Hemorrhage	Acute, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Moderate
* Urinary Bladder		Calculus Micro Observation Only	

[Calculus Micro Observation Only TGLS = 1-16]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 634

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q045

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 5-1]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
* Liver		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
	Biliar Tract	Hyperplasia	Marked
Note: Epithelial Hyperp of common bile duct			
[Hyperplasia TGLS = 1-15]			
[Hyperplasia TGLS = 1-15]			
* Lung			
Note: TGL"red"=not sign. lesion			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
* Mammary Gland		Hyperplasia	Cystic, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 634

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q045

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Degeneration

Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 678

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q047

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Bronchial	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

INSUFFICIENT TISSUE

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Kidney	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Marked
Note: fixation artifacts on kidney			
* Larynx		Hyperplasia	Mild
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-4]			
* Lung		Fibrosis	Mild
		Hemorrhage	Acute, Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 7-5,6]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Cystic, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 678

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q047

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Hyperplasia

Minimal

* Spleen

Fibrosis

Marked

Leukemia Mononuclear

[Fibrosis TGLS = 2-15]

[Leukemia Mononuclear TGLS = 1-3,15]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 3,4-17]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 542

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q048

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Leukemia Mononuclear	
* Kidney		Nephropathy	Minimal
* Larynx		Hyperplasia	Mild
* Liver	Centrilobular	Atrophy	Moderate
		Degeneration	Fatty, Moderate
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Degeneration TGLS = 5-4]			
* Lung		Hemorrhage	Acute, Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-5,6]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-10]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-10]			
* Nose		Thrombosis	Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin		Squamous Cell Papilloma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 542

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q048

ORGAN AND ACCOUNTABLE SITE STATUS

Note: [PAPILOMA SQUA] TGLs = 1-16

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 4-3]

* Testes

Interstit Cell

Adenoma

Interstit Cell

Hyperplasia

Mild

[Adenoma TGLS = 3-18]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: some fixation artifacts in tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q049

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lung	* Lymph Node, Bronchial
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea		

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney	Renal Tubule	Nephropathy	Marked
	[Nephropathy TGLS = 6-3]	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
	[Basophilic Focus TGLS = 5-4]		
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
	[Hyperplasia TGLS = 7-2]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
	[Hyperplasia TGLS = 7-2]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
	[Hyperplasia TGLS = 7-2]		
* Nose		Inflammation	Chronic Active, Mild
Note: unilateral assoc w/ foreign body			
* Pancreas		Adenoma	
	[Adenoma TGLS = 3-17]		
* Pituitary Gland	Pars Distalis	Adenoma	
Note: small, many anaplastic cells, but no invasion			
	[Adenoma TGLS = 8-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q049

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin Note: cyst ruptured & 2ndarily infected [Cyst Epithelial Inclusion TGLS = 1-16]		Cyst Epithelial Inclusion	
* Spleen [Fibrosis TGLS = 2-15]		Fibrosis	Moderate
* Testes [Adenoma TGLS = 9-19]	Interstit Cell	Adenoma	
* Thyroid Gland Tissue NOS Note: TGL "TNOS"=SKIN = nb	C Cell	Hyperplasia	Minimal
* Urinary Bladder [Calculus Gross Observation TGLS = 4-8]		Calculus Gross Observation	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 51

TRT#: 1

SEX: Male

DAY ON TEST: 671

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q051

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
		Cardiomyopathy	Mild
	Atrium	Leukemia Mononuclear	
	[Thrombosis TGLS = 4-15]	Thrombosis	
* Intestine Large, Colon		Inflammation	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Moderate
		Basophilic Focus	
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-5,6]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-6,3-2]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-6,3-2]		
* Lymph Node, Mediastinal		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-6,3-2]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 51	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 671 HISTO: RZ116/Q051
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ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Chronic Active, Mild
		Thrombosis	Mild
* Pancreas		Atrophy	Mild
		Leukemia Mononuclear	
* Parathyroid Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-3]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 2,7-16]		
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 52

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q052

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
---------------------------	-----------------

OBSERVATIONS

* Kidney	Nephropathy	Minimal
* Liver	Basophilic Focus	
* Lung	Hemorrhage	Acute, Minimal

Note: kill method caused hemorrhage

[Hemorrhage TGLS = 1-5]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 53

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q053

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-14]		
* Skin	Subcut Tiss	Lipoma	
	Note: [LIPOMA] TGLs = 3-15		
	Note: scrotal mass is fat		
	[Lipoma TGLS = 3-15]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-17]		
Tissue NOS			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 53

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q053

ORGAN AND ACCOUNTABLE SITE STATUS

Note: TGL"TNOS"=Subcutis of Scrotal skin, see SKIN

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 54

TRT#: 1

SEX: Male

DAY ON TEST: 699

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ166/Q054

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
[Nephropathy TGLS = 7-3]			
* Larynx		Hyperplasia	Mild
* Liver		Angiectasis	Marked
	Centrilobular	Atrophy	Moderate
		Degeneration	Fatty, Moderate
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-4]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 15-5,6]			
Lymph Node	Renal	Angiectasis	Moderate
[Angiectasis TGLS = 10-18]			
* Lymph Node, Bronchial		Angiectasis	Moderate
[Angiectasis TGLS = 13-6]			
* Lymph Node, Mediastinal		Angiectasis	Marked
[Angiectasis TGLS = 12-2]			
* Lymph Node, Mesenteric		Angiectasis	Marked
[Angiectasis TGLS = 11-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 54

TRT#: 1

SEX: Male

DAY ON TEST: 699

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ166/Q054

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Prostate		Inflammation	Mild
* Skin		Fibroma	
[Fibroma TGLS = 1-17]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-3,15]			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Moderate
	Interstit Cell	Hyperplasia	Moderate
[Adenoma TGLS = 2-20]			
[Hyperplasia TGLS = 3-20]			
* Thyroid Gland	C Cell	Carcinoma	
[Carcinoma TGLS = 14-2,16]			

PRIMARY CAUSE OF DEATH

-

Animal Note: sinusoidal ectasia, most w/ hemorrhage

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 55

TRT#: 1

SEX: Male

DAY ON TEST: 701

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q055

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Islets, Pancreatic	* Larynx	* Mammary Gland
* Skin	* Thyroid Gland	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Moderate
		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
		Leukemia Mononuclear	
* Intestine Small, Jejunum		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 7-5,6]	
Lymph Node	Axillary	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 5-15,8-6,4-16]	
		[Leukemia Mononuclear TGLS = 5-15,8-6,4-16]	
* Lymph Node, Bronchial		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 5-15,8-6,4-16]	
* Lymph Node, Mandibular		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 55

TRT#: 1

SEX: Male

DAY ON TEST: 701

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q055

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 5-15,8-6,4-16]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-15,8-6,4-16]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-15,8-6,4-16]			
* Nose		Leukemia Mononuclear	
* Pancreas		Leukemia Mononuclear	
* Parathyroid Gland		Hyperplasia	Moderate
* Pituitary Gland		Leukemia Mononuclear	
* Preputial Gland		Leukemia Mononuclear	
* Prostate		Leukemia Mononuclear	
* Salivary Glands		Leukemia Mononuclear	
* Seminal Vesicle		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]			
* Stomach, Forestomach		Leukemia Mononuclear	
* Stomach, Glandular		Leukemia Mononuclear	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 2-18]			
* Thymus		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-2]			
* Trachea		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: TGLrenalLN is PANCREATIC LN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 56

TRT#: 1

SEX: Male

DAY ON TEST: 635

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q056

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	Coagulating Gland	* Epididymis
* Esophagus	* Heart	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Pancreas	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Hyperplasia Vacuolization Cytoplasmic	Focal, Moderate Marked
* Adrenal Medulla		Hyperplasia	Mild
* Brain	Gray Matter	Necrosis	Mild
Note: focal in cerebellum			
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Eosinophilic Focus	
	Bile Duct	Hepatocellular Adenoma	
		Hyperplasia	Mild
		Leukemia Mononuclear	
[Hepatocellular Adenoma TGLS = 6-4]			
[Leukemia Mononuclear TGLS = 7-4]			
* Lung			
Note: TGL "mottled" probably congestion			
* Lymph Node, Bronchial		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Chronic Active, Minimal
* Parathyroid Gland		Hyperplasia	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 56	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 635 HISTO: RZ116/Q056
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [Adenoma TGLS = 9-14]	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
* Spleen [Fibrosis TGLS = 5-15,4-16] [Leukemia Mononuclear TGLS = 2-3,3-3,15,16]		Fibrosis Leukemia Mononuclear	Moderate
* Thymus * Urinary Bladder [Calculus Micro Observation Only TGLS = 1-8]		Degeneration Calculus Micro Observation Only	Marked

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 57

TRT#: 1

SEX: Male

DAY ON TEST: 572

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q057

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-16]			
Eye		Cataract	Moderate
[Cataract TGLS = 10-17]			
* Heart		Leukemia Mononuclear	
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Mild
* Liver	Centrilobular	Atrophy	Minimal
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-4]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-5,6]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-6,1-10]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-6,1-10]			
* Pituitary Gland		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3,15,3-3,15]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 57

TRT#: 1

SEX: Male

DAY ON TEST: 572

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q057

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 4-19]			
* Thymus		Leukemia Mononuclear	
Note: Med.LN mistaken for thymus @ gross			
[Leukemia Mononuclear TGLS = 6-2]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 59	TRT#: 3	SEX: Male	DAY ON TEST: 199
	DOSE: 0.0MG/M3LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-Q059

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Nose
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OBSERVATIONS

* Lung	Interstitialium	Infiltration Cellular	Minimal
Urinary Bladder		Calculus Micro Observation Only	
[Calculus Micro Observation Only TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 60

TRT#: 1

SEX: Male

DAY ON TEST: 596

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q060

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	Coagulating Gland	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Necrosis	Moderate
		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Marked
		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 13,14-1]		
* Epididymis			
	Note: filled w/ sperm/ not a lesion		
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Iliac	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-20,7-19,10-2,11-6,8-8,6-18]		
	[Leukemia Mononuclear TGLS = 5-20,7-19,10-2,11-6,8-8,6-18]		
	[Leukemia Mononuclear TGLS = 5-20,7-19,10-2,11-6,8-8,6-18]		
* Lymph Node, Bronchial		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 60	TRT#: 1	SEX: Male	DAY ON TEST: 596
	DOSE: 0.0MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/Q060

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 5-20,7-19,10-2,11-6,8-8,6-18]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-20,7-19,10-2,11-6,8-8,6-18]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-20,7-19,10-2,11-6,8-8,6-18]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-20,7-19,10-2,11-6,8-8,6-18]			
* Mammary Gland		Adenoma	
* Nose		Leukemia Mononuclear	
* Pancreas		Atrophy	Mild
		Leukemia Mononuclear	
* Parathyroid Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
[Adenoma TGLS = 12-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-3,15]			
* Stomach, Forestomach		Ulcer	Moderate
[Ulcer TGLS = 9-7]			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Moderate
[Adenoma TGLS = 1,2-22]			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
	Follicular Cel	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: focal cortical necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 61

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q061

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Leukemia Mononuclear Pheochromocytoma Benign	Mild
[Pheochromocytoma Benign TGLS = 4-14]			
* Heart		Cardiomyopathy	Mild
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Kidney		Nephropathy	Marked
* Liver	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hyperplasia	Moderate
	Hepatocyte	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-4,15]		Necrosis	Mild
* Lung		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-8]			
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 61

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q061

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

[Leukemia Mononuclear TGLS = 3-3]

Leukemia Mononuclear

* Testes

[Adenoma TGLS = 1,2-17]

Bilateral, Interstit Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 62

TRT#: 1

SEX: Male

DAY ON TEST: 639

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q062

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mediastinal	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
	Bile Duct	Hepatodiaphragmatic Nodule	
	[Hepatodiaphragmatic Nodule TGLS = 9-9]	Hyperplasia	Mild
* Lung		Carcinoma	Metastatic (Preputial Gland)
	Alveolar Epith	Hyperplasia	Focal, Mild
		Leukemia Mononuclear	
Note: leukemia has caused hemorrhage			
[Carcinoma TGLS = 11-17]			
[Leukemia Mononuclear TGLS = 10-16]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 4-10]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 4-10]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Cystic, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 12-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 62	TRT#: 1 DOSE: 0.0MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 639 HISTO: RZ116/Q062
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ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland [Carcinoma TGLS = 2-9,19]		Carcinoma	
* Skin Note: invasion of dermis w/ carcinoma [Carcinoma TGLS = 1-18]		Carcinoma	Metastatic (Preputial Gland)
* Spleen [Fibrosis TGLS = 8-15] [Leukemia Mononuclear TGLS = 7-3,15]		Fibrosis Leukemia Mononuclear	Mild
* Testes [Adenoma TGLS = 5,6-21]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Carcinoma of preputial gland

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 63

TRT#: 1

SEX: Male

DAY ON TEST: 651

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q063

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|-----------------------------|---------------------------|
| * Bone Marrow | * Brain | * Epididymis | * Esophagus |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Islets, Pancreatic | * Larynx | * Lymph Node, Bronchial | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nose | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Trachea | * Urinary Bladder | | |

MISSING

- | | |
|--------------------------|---------------------|
| * Lymph Node, Mandibular | * Parathyroid Gland |
|--------------------------|---------------------|

OBSERVATIONS

- | | | | |
|---|--------------|---------------------------|--------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Moderate |
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| * Bone | Cranium | Osteosarcoma | |
| Note: xrays show tumor in zygomatic arch
[Osteosarcoma TGLS = 7-18,13] | | | |
| Eye | | Phthisis Bulbi | |
| Note: left eye slide=no eye,replaced w/tumor tissue | | | |
| Note: in right eye
[Phthisis Bulbi TGLS = 4-16] | | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Intestine Large, Cecum | | Parasite Metazoan | |
| * Intestine Small, Jejunum | | Hyperplasia | Lymphoid, Moderate |
| [Hyperplasia TGLS = 6-7,15] | | | |
| * Kidney | | Nephropathy | Marked |
| * Liver | | Basophilic Focus | |
| | | Degeneration | Cystic, Minimal |
| | Bile Duct | Hyperplasia | Mild |
| * Lung | Interstitium | Infiltration Cellular | Minimal |
| | | Osteosarcoma | Metastatic (Bone) |
| * Pancreas | | Atrophy | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 63

TRT#: 1

SEX: Male

DAY ON TEST: 651

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q063

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

* Testes

Bilateral, Interstit Cell

Adenoma

Interstit Cell

Hyperplasia

Mild

[Adenoma TGLS = 1,2-20]

* Thyroid Gland

C Cell

Carcinoma

[Carcinoma TGLS = 3-2]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=osteosarcoma on zygomatic arch

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 64

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q064

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Mediastinal

INSUFFICIENT TISSUE

* Intestine Large, Rectum * Thymus

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Moderate
Note: many fixation artifacts			
[Cardiomyopathy TGLS = 5-16]			
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 4-3]			
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung	Interstitial	Infiltration Cellular	Minimal
* Parathyroid Gland		Hyperplasia	Mild
[Hyperplasia TGLS = 6-2]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Preputial Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 1-9]			
* Spleen		Fibrosis	Moderate
[Fibrosis TGLS = 3-15]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 64

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q064

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-17]

* Urinary Bladder

Calculus Micro Observation Only

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 65

TRT#: 1

SEX: Male

DAY ON TEST: 537

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q065

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Brain	Cerebrum	Compression	
[Compression TGLS = 6-1]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
		Degeneration	Fatty, Marked
* Mammary Gland		Hyperplasia	Cystic, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 7-14]			
* Preputial GI			
Note: TGL "small" = not considered lesion			
* Prostate			
Note: lacks fluids			
* Sem Ves			
Note: lacks fluids			
* Stomach, Forestomach		Ulcer	Marked
[Ulcer TGLS = 5-7,15,3-7]			
* Thymus		Degeneration	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 65

TRT#: 1

SEX: Male

DAY ON TEST: 537

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q065

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=gastric ulcer

Animal Note: TGL"thick" edema from ulcer, not independent lesion

Animal Note: inflammation, edema,& hyperkeratosis w/ ulcer

Animal Note: pituitary tumor contributed to death

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 66

TRT#: 1

SEX: Male

DAY ON TEST: 736

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q066

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
Note: many fixation artifacts			
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
[Nephropathy TGLS = 4-3]			
* Liver		Basophilic Focus	
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Mild
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[Adenoma TGLS = 5-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2,3-16]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 67

TRT#: 1

SEX: Male

DAY ON TEST: 565

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q067

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	Coagulating Gland	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 2-1]			
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 1-3]			
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Thymus		Degeneration	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 69

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q069

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Brain		Necrosis	Marked
Note: necrosis/hemorrhage 2dary to pit tumor			
[Necrosis TGLS = 6-1]			
Eye			
Note: TGLeye is conjunctiva, see SKIN			
* Intestine Large, Colon		Inflammation	Minimal
* Kidney		Nephropathy	Marked
* Liver	Bile Duct	Hyperplasia	Mild
* Lung		Inflammation	Chronic Active, Minimal
* Mammary Gland		Hyperplasia	Cystic, Minimal
* Parathyroid Gland		Hyperplasia	Moderate
Penis		Concretion	Moderate
[Concretion TGLS = 4-15,16]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-14]			
* Preputial Gland		Hyperplasia	Marked
[Hyperplasia TGLS = 3-9]			
* Prostate			
Note: distended w/ fluid=not a lesion			
* Sem Ves			
Note: distended w/ fluid=not a lesion			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 69

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q069

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	Conjunctiva	Inflammation Keratoacanthoma	Marked
Note: keratoacanthoma on prepuce [Inflammation TGLS = 1-18] [Keratoacanthoma TGLS = 2-17]			
* Testes	Germinal Epith	Degeneration	Mild
* Thymus		Degeneration	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=focal brain necrosis 2dary to pit tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 70

TRT#: 1

SEX: Male

DAY ON TEST: 539

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q070

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Mild
* Adrenal Medulla		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-1]			
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Moderate
* Larynx		Inflammation	Minimal
* Liver		Leukemia Mononuclear	
Note: massive leukemia invasion			
[Leukemia Mononuclear TGLS = 3-4]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-5,6]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Leukemia Mononuclear	
* Pancreas		Atrophy	Mild
Penis		Concretion	Moderate
[Concretion TGLS = 6-17]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3,15,16,2-3,15,16]			
* Testes	Interstit Cell	Hyperplasia	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 70

TRT#: 1

SEX: Male

DAY ON TEST: 539

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q070

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Degeneration

Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 141

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R141

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Stomach, Forestomach	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Thymus

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear Pheochromocytoma Benign Pheochromocytoma Malignant	
[Pheochromocytoma Malignant TGLS = 6-14]			
* Bone Marrow		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Islets, Pancreatic		Adenoma	
* Kidney		Cyst	
[Cyst TGLS = 11-17]		Leukemia Mononuclear	
[Nephropathy TGLS = 7-3,17]		Nephropathy	Marked
* Liver		Basophilic Focus	
		Degeneration	Cystic, Moderate
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Moderate
	Alveolus	Hyperplasia	Macrophage, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 141

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R141

ORGAN AND ACCOUNTABLE SITE STATUS

Interstitialium		Infiltration Cellular Inflammation Leukemia Mononuclear	Mild Chronic Active, Mild
[Inflammation TGLS = 9-5,6] [Leukemia Mononuclear TGLS = 8-5,6]			
Lymph Node	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-16]			
* Lymph Node, Bronchial		Hyperplasia Hyperplasia Inflammation	Lymphoid, Minimal Macrophage, Minimal Chronic Active, Minimal
* Nose		Hyperplasia	Marked
* Parathyroid Gland		Atrophy	Moderate
* Seminal Vesicle		Squamous Cell Papilloma	
* Skin	Tail		
Note: [PAPILLOMA SQUA] TGLs = 1-18			
* Spleen		Fibrosis Leukemia Mononuclear	Moderate
[Fibrosis TGLS = 5-15] [Leukemia Mononuclear TGLS = 4-3,15]			
* Stomach, Glandular	Epithelium	Mineralization	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2,3-20]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CaDX=tumor thrombi in vein & Apparent capsule invas.

Animal Note: CO/MSAC=Leukemia & renal failure

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 142

TRT#: 5

SEX: Male

DAY ON TEST: 638

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R142

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Bone		Leukemia Mononuclear	
Eye	Retina	Hyperostosis	
	Antr Chamber	Degeneration	Moderate
	[Hemorrhage TGLS = 1-16]	Hemorrhage	Chronic, Moderate
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Moderate
	[Leukemia Mononuclear TGLS = 7-3]	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Mild
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
	Note: Fixation artifacts present		
	[Leukemia Mononuclear TGLS = 6-4]		
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	

Note: marked leukemia involment

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 142

TRT#: 5

SEX: Male

DAY ON TEST: 638

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R142

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 8-5,6]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Mild

Hyperplasia

Macrophage, Minimal

* Lymph Node, Mandibular

Leukemia Mononuclear

* Lymph Node, Mediastinal

Leukemia Mononuclear

* Lymph Node, Mesenteric

Leukemia Mononuclear

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-3,15]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 4,5-18]

* Thymus

Leukemia Mononuclear

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 143

TRT#: 5

SEX: Male

DAY ON TEST: 695

DOSE: 0.15 MG/M3

DISP: Natural Death

HISTO: RZ116/R143

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Skin	* Stomach, Forestomach	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Thymus

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
* Bone		Hyperostosis	
Note: femur			
* Bone Marrow		Atrophy	Mild
Note: necrosis also			
* Heart		Cardiomyopathy	Mild
	Atrium	Thrombosis	
[Thrombosis TGLS = 8-15]			
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
[Nephropathy TGLS = 3-3]			
* Liver		Hyperplasia	Marked
	Bile Duct	Necrosis	Marked
	Hepatocyte		
Note: fixation artifacts present			
[Necrosis TGLS = 2-4]			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 143

TRT#: 5

SEX: Male

DAY ON TEST: 695

DOSE: 0.15 MG/M3

DISP: Natural Death

HISTO: RZ116/R143

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 10-5,6]			
* Lymph Node, Bronchial		Ectasia	Moderate
[Ectasia TGLS = 9-6]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 7-2]			
* Nose		Inflammation	Chronic Active, Mild
Note: inflam. assoc w/ foreign body			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Seminal Vesicle		Atrophy	Mild
* Spleen		Atrophy	Moderate
		Fibrosis	Moderate
[Fibrosis TGLS = 1-2]			
* Stomach, Glandular		Necrosis	Focal, Mild
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Moderate
	Interstit Cell	Hyperplasia	Minimal
[Adenoma TGLS = 4-16]			
[Degeneration TGLS = 5-16]			
[Hyperplasia TGLS = 6-16]			

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Hepatic necrosis

Animal Note: necrosis appears to be agonal leaion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 144

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: RZ116/R144

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
[Cyst TGLS = 5-3]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
Note: no lesion found causing TGL"Enlarged"			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 8-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 1-10]			
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
[Hyperplasia TGLS = 1-10]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 144

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R144

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Inflammation	Mild
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
	[Fibrosis TGLS = 3-16]		
	[Leukemia Mononuclear TGLS = 2-15,16]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 6,7-18]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 145

TRT#: 5

SEX: Male

DAY ON TEST: 599

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R145

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
		Leukemia Mononuclear	
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Liver	Centrilobular	Atrophy	Mild
	Bile Duct	Hyperplasia	Moderate
	Hepatocyte	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-4]	Necrosis	Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
	[Inflammation TGLS = 7-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
* Lymph Node, Mediastinal		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland		Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 145

TRT#: 5

SEX: Male

DAY ON TEST: 599

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R145

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-9]	Inflammation	Mild
* Skin Note: TGL "laceration"=enlarged preput.gl.opening from tumor		
* Spleen [Leukemia Mononuclear TGLS = 5-3,15]	Leukemia Mononuclear	
* Testes Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Moderate
[Adenoma TGLS = 3-19,4-17,19]		
* Thymus	Leukemia Mononuclear	
* Urinary Bladder [Calculus Gross Observation TGLS = 8-8]	Calculus Gross Observation	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Leukemia & preputial gl. adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 146

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: RZ116/R146

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
[Pheochromocytoma Benign TGLS = 6-14]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 7-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas		Hyperplasia	Moderate
[Hyperplasia TGLS = 3-17]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 8-14]			
* Prostate		Inflammation	Mild
* Skin		Fibroma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 146	TRT#: 5	SEX: Male	DAY ON TEST: 733
	DOSE: 0.15 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/R146

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroma TGLS = 1-15]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-16]			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Moderate
	Interstit Cell	Hyperplasia	Moderate
[Adenoma TGLS = 4-19]			
[Degeneration TGLS = 5-19]			
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tissue NOS			
Note: TGL"MASS"=SKIN, nb			

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 148

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Natural Death

DAY ON TEST: 690

HISTO: RZ116/R148

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Larynx	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
	[Leukemia Mononuclear TGLS = 6-14,17]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
	Atrium	Thrombosis	
* Islets, Pancreatic		Adenoma	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Moderate
	[Leukemia Mononuclear TGLS = 5-3]		
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Marked
	Hepatocyte	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-4]		
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 148

TRT#: 5

SEX: Male

DAY ON TEST: 690

DOSE: 0.15 MG/M3

DISP: Natural Death

HISTO: RZ116/R148

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 10-5,6]			
Lymph Node	Iliac	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,8-19,9-2,2-18]			
[Leukemia Mononuclear TGLS = 1-10,8-19,9-2,2-18]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,8-19,9-2,2-18]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,8-19,9-2,2-18]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,8-19,9-2,2-18]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,8-19,9-2,2-18]			
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[Fibrosis TGLS = 4-15]			
[Leukemia Mononuclear TGLS = 3-3,15]			
* Testes	Germinal Epith	Degeneration	Mild
	Interstit Cell	Hyperplasia	Minimal
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 149

TRT#: 5

SEX: Male

DAY ON TEST: 718

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R149

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
		Leukemia Mononuclear	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Mild
		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: focal fixation artifacts present			
	[Leukemia Mononuclear TGLS = 4-4]		
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	[Fibrosis TGLS = 8-5,6,16]		
	[Inflammation TGLS = 7-5,6,16]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-6,5-2]		
* Lymph Node, Mandibular		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 149

TRT#: 5

SEX: Male

DAY ON TEST: 718

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R149

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 6-6,5-2]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6,5-2]			
* Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose		Thrombosis	Minimal
* Skin		Cyst Epithelial Inclusion	
Note: [CYST] TGLs = 1-17			
Note: epidermal cyst			
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[Fibrosis TGLS = 3-15]			
[Leukemia Mononuclear TGLS = 9-3,15]			
* Stomach, Forestomach		Hyperkeratosis	Moderate
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Marked
[Adenoma TGLS = 2-19]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:12
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 150

TRT#: 7

SEX: Male

DAY ON TEST: 199

DOSE: 0.15 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-R150

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Nose

OBSERVATIONS

* Lung

Alveolus

Hyperplasia

Macrophage, Mild

Interstitialium

Infiltration Cellular

Minimal

Inflammation

Chronic Active, Minimal

Alveolus

Proteinosis

Minimal

[Hyperplasia TGLS = 1-3,4]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Minimal

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 151

TRT#: 5

SEX: Male

DAY ON TEST: 623

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R151

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Moderate
* Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Epididymis		Granuloma Sperm	Moderate
[Granuloma Sperm TGLS = 8-18]			
* Heart		Cardiomyopathy	Moderate
* Kidney		Leukemia Mononuclear	
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Eosinophilic Focus TGLS = 14-17]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	

Note: leukemia overruns other lesions

[Inflammation TGLS = 13-5,6]

[Leukemia Mononuclear TGLS = 12-5,6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 151

TRT#: 5

SEX: Male

DAY ON TEST: 623

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R151

ORGAN AND ACCOUNTABLE SITE STATUS

Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,10-2,2-19]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,10-2,2-19]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,10-2,2-19]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-10,10-2,2-19]			
* Spleen		Fibrosis	Mild
[Fibrosis TGLS = 4-15,16,5-15,16]			
[Leukemia Mononuclear TGLS = 3-3,15,16]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 6,7-21]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear Cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 152

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: RZ116/R152

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
Note: adenoma DX vs hyper. based on cytology, atypia			
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 4,5-3,16,17]			
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
[Hepatodiaphragmatic Nodule TGLS = 6-18]			
* Lung		Emphysema	Minimal
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Hyperplasia TGLS = 8-5,6]			
[Hyperplasia TGLS = 8-5,6]			
[Inflammation TGLS = 9-5,6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 152

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R152

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Pancreas		Adenoma	
		Atrophy	Mild
* Parathyroid Gland		Adenoma	
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 2-20]			
* Thyroid Gland	C Cell	Carcinoma	
[Carcinoma TGLS = 7-15]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 153

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.15 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/R153

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 2-5]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Testes	Interstit Cell	Hyperplasia	Moderate
* Urinary Bladder		Calculus Micro Observation Only	
[Calculus Micro Observation Only TGLS = 1-8]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 154

TRT#: 5

SEX: Male

DAY ON TEST: 700

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R154

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart	Atrium	Cardiomyopathy	Mild
		Thrombosis	
Note: focal fixation artifacts			
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Marked
[Nephropathy TGLS = 6-3]			
* Liver		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: focal fixation artifacts			
[Leukemia Mononuclear TGLS = 7-4]			
* Lung		Fibrosis	Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Note: massive leukemia involvement in lung			
[Inflammation TGLS = 9-5,6]			
[Leukemia Mononuclear TGLS = 10-17,19,20]			
Lymph Node	Pancreatic	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 154

TRT#: 5

SEX: Male

DAY ON TEST: 700

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R154

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 8-6]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-6]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-6]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-6]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-6]			
* Pancreas		Atrophy	Mild
* Parathyroid Gland		Hyperplasia	Moderate
* Pituitary Gland		Leukemia Mononuclear	
* Preputial Gland		Inflammation	Mild
* Spleen		Fibrosis	Moderate
		Infarct	Marked
		Leukemia Mononuclear	
[Fibrosis TGLS = 4-16]			
[Infarct TGLS = 5-15]			
[Leukemia Mononuclear TGLS = 3-3,15,16]			
* Stomach, Forestomach		Hyperkeratosis	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1,2-22]			
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear Cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 155

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R155

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
* Kidney	Renal Tubule	Nephropathy Pigmentation	Marked Mild
* Liver	Bile Duct	Basophilic Focus Hyperplasia Leukemia Mononuclear	Minimal
* Lung	Alveolar Epith Alveolus Bronchus Interstitialium Alveolus	Fibrosis Hyperplasia Hyperplasia Hyperplasia Infiltration Cellular Inflammation Metaplasia Proteinosis	Mild Focal, Mild Macrophage, Moderate Lymphoid, Mild Minimal Chronic Active, Moderate Squamous, Minimal Minimal
[Hyperplasia TGLS = 6-17]			
[Hyperplasia TGLS = 6-17]			
[Hyperplasia TGLS = 6-17]			
[Inflammation TGLS = 5-5,6,17]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 155

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R155

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Chronic Active, Minimal
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-15]		
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Mild
	Interstit Cell	Hyperplasia	Mild
	[Adenoma TGLS = 3-19]		
	[Degeneration TGLS = 4-19]		
* Thyroid Gland	C Cell	Hyperplasia	Mild
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 156

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R156

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	Coagulating Gland	* Epididymis	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
	[Inflammation TGLS = 3-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
* Nose		Inflammation	Chronic Active, Marked
	Note: unilateral assoc w/ foreign body		
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
	[Adenoma TGLS = 4-14]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1,2-16]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 156

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R156

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 157

TRT#: 5

SEX: Male

DAY ON TEST: 608

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R157

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Trachea	

MISSING

* Salivary Glands

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Mild
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Eosinophilic Focus TGLS = 6-4]			
* Lung		Fibrosis	Mild
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
		Metaplasia	Squamous, Minimal
Note: massive leukemia involvement in lung [Inflammation TGLS = 14-5,6] [Leukemia Mononuclear TGLS = 13-5,6]			
Lymph Node	Axillary	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 157	TRT#: 5 DOSE: 0.15 MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 608 HISTO: RZ116/R157
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ORGAN AND ACCOUNTABLE SITE STATUS

Deep Cervical		Leukemia Mononuclear	
Iliac		Leukemia Mononuclear	
Pancreatic		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-8,5-17,9-18,19,12-6,11-16,2-20,15-2,1-10]			
[Leukemia Mononuclear TGLS = 4-8,5-17,9-18,19,12-6,11-16,2-20,15-2,1-10]			
[Leukemia Mononuclear TGLS = 4-8,5-17,9-18,19,12-6,11-16,2-20,15-2,1-10]			
[Leukemia Mononuclear TGLS = 4-8,5-17,9-18,19,12-6,11-16,2-20,15-2,1-10]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-8,5-17,9-18,19,12-6,11-16,2-20,15-2,1-10]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-8,5-17,9-18,19,12-6,11-16,2-20,15-2,1-10]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-8,5-17,9-18,19,12-6,11-16,2-20,15-2,1-10]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-8,5-17,9-18,19,12-6,11-16,2-20,15-2,1-10]			
* Pancreas		Atrophy	Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-3,15]			
* Stomach, Forestomach		Hyperkeratosis	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 7,8-22]			
* Thymus		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-2]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 159

TRT#: 5

SEX: Male

DAY ON TEST: 599

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R159

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Marked
		Pigmentation	Marked
[Nephropathy TGLS = 9-3]			
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: focal fixation artifacts			
[Hyperplasia TGLS = 8-4]			
[Leukemia Mononuclear TGLS = 7-4]			
* Lung		Fibrosis	Mild
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
Note: massive leukemia involvement			
[Inflammation TGLS = 16-5,6]			
[Leukemia Mononuclear TGLS = 17,18-5,6]			
Lymph Node	Axillary	Leukemia Mononuclear	
	Deep Cervical	Leukemia Mononuclear	
	Iliac	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 159

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 599

HISTO: RZ116/R159

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 15-8,12-2,1-17,19-18,14-6,10-19,11-16,2-10]

[Leukemia Mononuclear TGLS = 15-8,12-2,1-17,19-18,14-6,10-19,11-16,2-10]

[Leukemia Mononuclear TGLS = 15-8,12-2,1-17,19-18,14-6,10-19,11-16,2-10]

[Leukemia Mononuclear TGLS = 15-8,12-2,1-17,19-18,14-6,10-19,11-16,2-10]

* Lymph Node, Bronchial

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 15-8,12-2,1-17,19-18,14-6,10-19,11-16,2-10]

* Lymph Node, Mandibular

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 15-8,12-2,1-17,19-18,14-6,10-19,11-16,2-10]

* Lymph Node, Mediastinal

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 15-8,12-2,1-17,19-18,14-6,10-19,11-16,2-10]

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 15-8,12-2,1-17,19-18,14-6,10-19,11-16,2-10]

* Pituitary Gland

Note: Focal congestion=not sign. lesion

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3,4-3,15]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 5,6-21]

* Thymus

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 13-2]

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 160

TRT#: 5

SEX: Male

DAY ON TEST: 639

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R160

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone | * Brain | * Epididymis | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Mammary Gland |
| * Pancreas | * Parathyroid Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-------------------|-------------------------------------|---------------------------|----------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Moderate |
| * Adrenal Medulla | | Hyperplasia | Moderate |
| * Bone Marrow | | Atrophy | Mild |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | Renal Tubule | Nephropathy | Moderate |
| | [Nephropathy TGLS = 6-3] | Pigmentation | Marked |
| * Larynx | | Inflammation | Minimal |
| * Liver | | Degeneration | Cystic, Minimal |
| | Bile Duct | Eosinophilic Focus | |
| | | Hyperplasia | Moderate |
| | Hepatocyte | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 5-4] | Necrosis | Mild |
| * Lung | Alveolus | Fibrosis | Minimal |
| | | Hyperplasia | Macrophage, Minimal |
| | | Inflammation | Chronic Active, Mild |
| | Alveolus | Leukemia Mononuclear | |
| | [Inflammation TGLS = 9-5,6] | Proteinosis | Minimal |
| Lymph Node | Axillary | Leukemia Mononuclear | |
| | Iliac | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 160

TRT#: 5

SEX: Male

DAY ON TEST: 639

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R160

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 4-17,7-16,8-2,1-10,3-8]			
[Leukemia Mononuclear TGLS = 4-17,7-16,8-2,1-10,3-8]			
* Lymph Node, Bronchial		Hyperplasia Leukemia Mononuclear	Macrophage, Mild
[Leukemia Mononuclear TGLS = 4-17,7-16,8-2,1-10,3-8]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-17,7-16,8-2,1-10,3-8]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-17,7-16,8-2,1-10,3-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-17,7-16,8-2,1-10,3-8]			
* Nose		Inflammation	Chronic Active, Marked
Note: assoc. w/ foreign body			
* Pituitary Gland	Pars Distalis	Adenoma Leukemia Mononuclear	
[Adenoma TGLS = 10-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3,15]			
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 161

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R161

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 2-3]			
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 3-5,6]			
[Hyperplasia TGLS = 3-5,6]			
[Inflammation TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:12

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 161

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R161

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric

Hyperplasia

Lymphoid, Moderate

* Pituitary Gland

Pars Distalis

Hyperplasia

Marked

* Testes

Interstit Cell

Adenoma

Germinal Epith

Degeneration

Moderate

[Adenoma TGLS = 1-16]

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 162

TRT#: 5

SEX: Male

DAY ON TEST: 398

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R162

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

- * Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Kidney		Nephropathy	Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 3-5,6]			
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Marked
[Hyperplasia TGLS = 1-10]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 1-10]			
* Thymus		Degeneration	Mild
Tooth		Dysplasia	Moderate
[Dysplasia TGLS = 2-12]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=malocclusion/ dysplasia of incisor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 163

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 563

HISTO: RZ116/R163

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Brain	Cerebrum	Compression	
[Compression TGLS = 10-1]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
Note: focal fixation artifacts			
* Liver	Bile Duct	Degeneration	Fatty, Mild
		Hyperplasia	Mild
Note: focal fixation artifacts			
* Lung	Alveolus	Fibrosis	Mild
		Hyperplasia	Macrophage, Minimal
		Inflammation	Chronic Active, Moderate
[Inflammation TGLS = 8-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 7-2,1-10]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 7-2,1-10]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 7-2,1-10]			
* Nose		Inflammation	Chronic Active, Moderate
Note: inflamm. assoc.w/ foreign body			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 163	TRT#: 5	SEX: Male	DAY ON TEST: 563
	DOSE: 0.15 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/R163

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [Adenoma TGLS = 9-14]	Pars Distalis	Adenoma	
* Preputial Gland [Hyperplasia TGLS = 2-9]		Hyperplasia	Marked
* Sem Ves Note: Sem.Ves dilated w/ fluid=not a lesion			
* Spleen		Pigmentation	Hemosiderin, Moderate
* Stomach, Forestomach [Ulcer TGLS = 5-16]		Ulcer	Marked
* Thymus		Degeneration	Marked
Urethra [Calculus Micro Observation Only TGLS = 4-15]		Calculus Micro Observation Only	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 164

TRT#: 5

SEX: Male

DAY ON TEST: 552

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R164

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
[Pheochromocytoma Benign TGLS = 5-14]			
* Bone Marrow		Necrosis	Moderate
Note: focal necrosis			
* Heart		Cardiomyopathy	Mild
	Atrium	Thrombosis	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Larynx		Inflammation	Minimal
* Liver	Centrilobular	Atrophy	Mild
	Bile Duct	Basophilic Focus	
		Hyperplasia	Mild
		Leukemia Mononuclear	
Note: TGL "pale" not considered lesion			
[Hyperplasia TGLS = 4-4]			
* Lung		Fibrosis	Mild
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
[Inflammation TGLS = 7-5,6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 164

TRT#: 5

SEX: Male

DAY ON TEST: 552

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R164

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial [Leukemia Mononuclear TGLS = 6-2]		Leukemia Mononuclear	
* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 6-2]		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen [Leukemia Mononuclear TGLS = 1-3]		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Degeneration	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=leukemia and pheochromocytoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 165

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R165

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-4]			
* Lung		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Minimal

Note: CaDXbased on anaplasia & invasion bronchial wall

Note: Alv Bron Carc has Squamous Differentiation.

[Alveolar/Bronchiolar Carcinoma TGLS = 12-15]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 165

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R165

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 10-5,6,17]

[Hyperplasia TGLS = 10-5,6,17]

[Inflammation TGLS = 11-5,6,17]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Moderate

* Lymph Node, Mediastinal

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 9-2]

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 9-2]

* Prostate

Inflammation

Mild

* Spleen

Fibrosis

Marked

Leukemia Mononuclear

[Fibrosis TGLS = 3-19,4-18]

[Leukemia Mononuclear TGLS = 2-3,18,19]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 5,6-21]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 166

TRT#: 5

SEX: Male

DAY ON TEST: 623

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R166

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolus	Fibrosis	Minimal
		Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
Note: A/B Ca invaded pleural cavity, mediastinum			
[Alveolar/Bronchiolar Carcinoma TGLS = 5-5,18]			
[Inflammation TGLS = 4-5,6]			
* Lymph Node, Mediastinal		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[Adenoma TGLS = 7-14]			
* Preputial Gland		Inflammation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 166	TRT#: 5 DOSE: 0.15 MG/M3	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 623 HISTO: RZ116/R166
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ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus Note: TGL"THYMUS"=Lung Mets in mediastinum	Interstit Cell	Hyperplasia	Mild
Tissue NOS	Mediastinum Thoracic	Alveolar/Bronchiolar Carcinoma Alveolar/Bronchiolar Carcinoma	Metastatic (Lung) Metastatic (Lung)
[Alveolar/Bronchiolar Carcinoma TGLS = 2,3-2,1-16,17,6-6,17]			
[Alveolar/Bronchiolar Carcinoma TGLS = 2,3-2,1-16,17,6-6,17]			

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Alveolar/bronchiolar Ca

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 167

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: RZ116/R167

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Small, Duodenum		Adenocarcinoma	
[Adenocarcinoma TGLS = 3-15]			
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 4-3]			
* Liver		Basophilic Focus	
* Lung		Fibrosis	Moderate
	Alveolar Epith	Hyperplasia	Focal, Marked
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
Note: prolif lesion around vein=focal alv.epith.hyperpl.			
[Inflammation TGLS = 5-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Nose		Inflammation	Acute, Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 167	TRT#: 5	SEX: Male	DAY ON TEST: 736
	DOSE: 0.15 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/R167

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 6-14]	Pars Distalis	Angiectasis	Moderate
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 2-17]	Germinal Epith	Degeneration	Marked
[Degeneration TGLS = 1-17]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 168

TRT#: 5

SEX: Male

DAY ON TEST: 594

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R168

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Thymus

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Kidney		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
Note: fixation artifacts			
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
		Metaplasia	Osseous, Minimal
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 5-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Nose		Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 168

TRT#: 5

SEX: Male

DAY ON TEST: 594

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R168

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell
Germinal Epith

Adenoma
Degeneration

Moderate

[Adenoma TGLS = 2,3-17]

Tissue NOS

Note: TGL"TNOS"=Mammary gland, which see

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Fibroadenoma of mammary gland

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 169

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R169

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
Eye		Cataract	Marked
	Retina	Degeneration	Moderate
[Cataract TGLS = 1-15]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
[Nephropathy TGLS = 3-3]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
[Inflammation TGLS = 6-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 169

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R169

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 7-14]

* Spleen

Hyperplasia

Lymphoid, Mild

[Hyperplasia TGLS = 2-3]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 4,5-17]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 170

TRT#: 5

SEX: Male

DAY ON TEST: 549

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R170

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Mammary Gland
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OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Kidney		Nephropathy	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Marked
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Minimal

Note: Alv Bron Aden has Squamous Differentiation.

Note: focal fibrosis w/ epi.hyperplasia marked

Note: dysplasia but assoc. inflammation pts to huper DX

[Alveolar/Bronchiolar Adenoma TGLS = 1-6]

[Hyperplasia TGLS = 1-5,6]

[Hyperplasia TGLS = 1-5,6]

* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 170

TRT#: 5

SEX: Male

DAY ON TEST: 549

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R170

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin		Fibroma	
Note: Well diff., but necrosis in center [Fibroma TGLS = 2-15]			
* Testes	Interstit Cell	Hyperplasia	Mild
Tissue NOS			
Note: TGL"TNOS"=SKIN, which see			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Fibroma of skin

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 172

TRT#: 5

SEX: Male

DAY ON TEST: 595

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R172

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	Coagulating Gland	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Marked
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Minimal
Note: mono CL compromises lung lesion grading [Fibrosis TGLS = 4-4,5]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 172

TRT#: 5

SEX: Male

DAY ON TEST: 595

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R172

ORGAN AND ACCOUNTABLE SITE STATUS

Pars Distalis

Angiectasis

Moderate

Leukemia Mononuclear

[Adenoma TGLS = 5-14]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-3]

* Testes

Bilateral, Interstit Cell

Adenoma

Germinal Epith

Degeneration

Moderate

[Adenoma TGLS = 1,2-16]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear Cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 173

TRT#: 5

SEX: Male

DAY ON TEST: 569

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R173

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone		Hyperostosis	
Note: femur			
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
	Atrium	Thrombosis	
	[Thrombosis TGLS = 7-17,18]		
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
	[Pigmentation TGLS = 5-3]		
* Liver		Atrophy	Marked
	Centrilobular	Degeneration	Fatty, Moderate
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-4]		
* Lung		Hyperplasia	Macrophage, Mild
	Alveolus	Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Minimal
	[Inflammation TGLS = 8-5,6]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 6-2]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 173

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 569

HISTO: RZ116/R173

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Thrombosis	Minimal
* Spleen		Leukemia Mononuclear	
Note: TGLs are congestion, necrosis related to GCL [Leukemia Mononuclear TGLS = 1,2,3-3,15,16]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear Cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 174

TRT#: 5

SEX: Male

DAY ON TEST: 538

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R174

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	Spinal Cord
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Atrophy	Moderate
* Islets, Pancreatic		Carcinoma	
Note: TGL"Panc LN" is Pancreas			
Note: tumor has thick capsule			
[Carcinoma TGLS = 1-15]			
* Kidney		Nephropathy	Minimal
* Liver	Centrilobular	Atrophy	Moderate
		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 2-5,6]			
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
Note: fixation artifact in pit.			
[Hyperplasia TGLS = 4-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 174

TRT#: 5

SEX: Male

DAY ON TEST: 538

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R174

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Interstit Cell

Adenoma

[Adenoma TGLS = 5-18]

PRIMARY CAUSE OF DEATH

-

Animal Note: no cord lesion to account for clinical signs

Animal Note: TGL"Panc LN" is PANCREAS, which see

Animal Note: CO/MSAC=Undetermined, may related to islet cell adenoma

Animal Note: "Partial" posterior paralysis may relate to islet cell T.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 175

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.15 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/R175

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Thymus

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 1-5]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Preputial Gland		Inflammation	Moderate
* Testes	Interstit Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 177

TRT#: 5

SEX: Male

DAY ON TEST: 624

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R177

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Moderate
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	Hepatocyte	Necrosis	Mild
	[Leukemia Mononuclear TGLS = 3-4]		
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Mild
	[Inflammation TGLS = 7-5,6]		
	Lymph Node	Leukemia Mononuclear	
* Lymph Node, Bronchial	Pancreatic	Hyperplasia	Plasma Cell, Moderate
	[Hyperplasia TGLS = 5-2,6-6]		
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 177

TRT#: 5

SEX: Male

DAY ON TEST: 624

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R177

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 5-2,6-6]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Marked
[Hyperplasia TGLS = 5-2,6-6]			
* Pancreas		Atrophy	Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3,15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2,8-17]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear Cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 178

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.15 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/R178

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Testes | * Thymus |
| * Thyroid Gland | * Trachea | | |

INSUFFICIENT TISSUE

- * Larynx

OBSERVATIONS

- | | | | |
|----------------------------|----------|---------------------------------|-------------------------|
| * Kidney | | Nephropathy | Minimal |
| * Liver | | Basophilic Focus | |
| * Lung | Alveolus | Hyperplasia | Macrophage, Mild |
| | | Inflammation | Chronic Active, Minimal |
| | | Metaplasia | Osseous, Minimal |
| | Alveolus | Proteinosis | Minimal |
| [Hyperplasia TGLS = 1-5] | | | |
| * Lymph Node, Bronchial | | Hyperplasia | Lymphoid, Minimal |
| | | Hyperplasia | Macrophage, Minimal |
| * Nose | | Inflammation | Chronic Active, Minimal |
| * Urinary Bladder | | Calculus Micro Observation Only | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 179

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: RZ116/R179

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Mammary Gland	* Nose	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 6-14]		
* Bone Marrow		Leukemia Mononuclear	
* Brain			
	Note: fixation artifacts on brain		
* Heart		Cardiomyopathy	Mild
	Note: fixation artifacts on heart		
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Marked
	[Nephropathy TGLS = 7-3]		
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-4]		
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	[Hyperplasia TGLS = 9-5,6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 179

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R179

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 10-5,6]		
* Lymph Node, Bronchial	Hyperplasia Hyperplasia	Macrophage, Minimal Lymphoid, Mild
[Hyperplasia TGLS = 2-10,2-10]		
[Hyperplasia TGLS = 2-10,2-10]		
* Lymph Node, Mandibular	Hyperplasia	Plasma Cell, Marked
[Hyperplasia TGLS = 2-10]		
* Lymph Node, Mediastinal	Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 2-10]		
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 2-10]		
* Pancreas	Atrophy	Mild
* Parathyroid Gland	Hyperplasia	Mild
* Skin	Keratoacanthoma	
[Keratoacanthoma TGLS = 1-16]		
* Spleen	Fibrosis Leukemia Mononuclear	Moderate
[Fibrosis TGLS = 12-17]		
[Leukemia Mononuclear TGLS = 3-15,17]		
* Testes	Interstit Cell Adenoma	
Note: TGL has bilateral masses but only one mass found		
[Adenoma TGLS = 4-19]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 180

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R180

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Inflammation	Granulomatous, Focal, Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Infarct	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1,2-16]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 180

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R180

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 181

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R181

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Nose
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 7-5,6]			
[Inflammation TGLS = 8-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Pancreas		Atrophy	Moderate
* Parathyroid Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 181	TRT#: 5	SEX: Male	DAY ON TEST: 736
	DOSE: 0.15 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/R181

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin [Keratoacanthoma TGLS = 1-17]		Keratoacanthoma	
* Spleen [Fibrosis TGLS = 5-15] [Leukemia Mononuclear TGLS = 4-3,15]		Fibrosis Leukemia Mononuclear	Moderate
* Stomach, Forestomach [Diverticulum TGLS = 6-16]		Diverticulum	Marked
* Testes [Adenoma TGLS = 2,3-19]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Hyperplasia	Mild
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 182

TRT#: 7

SEX: Male

DAY ON TEST: 199

DOSE: 0.15 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-R182

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Nose

OBSERVATIONS

* Lung

Alveolus

Hyperplasia

Macrophage, Mild

Interstitialium

Infiltration Cellular

Minimal

Inflammation

Chronic Active, Minimal

Alveolus

Proteinosis

Minimal

[Inflammation TGLS = 3-3,4]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Minimal

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Minimal

Urinary Bladder

Calculus Micro Observation Only

[Calculus Micro Observation Only TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 183

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.15 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/R183

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
	[Inflammation TGLS = 2-5]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[Adenoma TGLS = 1-15]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 184

TRT#: 5

SEX: Male

DAY ON TEST: 650

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R184

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Moderate
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
	[Hyperplasia TGLS = 5-5,6]		
	[Hyperplasia TGLS = 5-5,6]		
	[Inflammation TGLS = 6-5,6]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 184	TRT#: 5	SEX: Male	DAY ON TEST: 650
	DOSE: 0.15 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/R184

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 4-2]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 4-2]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
		Leukemia Mononuclear	
[Adenoma TGLS = 7-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2,3-16]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 186

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.15 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/R186

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Intestine Large, Cecum		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Hemorrhage	Acute, Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Mild
[Hyperplasia TGLS = 4-5]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Macrophage, Minimal
* Urinary Bladder		Calculus Gross Observation	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 187

TRT#: 5

SEX: Male

DAY ON TEST: 639

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R187

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
* Liver	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 8-4]	Necrosis	Mild
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Mild
	Alveolus	Leukemia Mononuclear	
	[Hyperplasia TGLS = 12-5,6]	Proteinosis	Mild
	[Inflammation TGLS = 13-5,6]		
Lymph Node	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 11-6,1-10,9-17,7-16,10-2]		
	[Leukemia Mononuclear TGLS = 11-6,1-10,9-17,7-16,10-2]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 11-6,1-10,9-17,7-16,10-2]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 187

TRT#: 5

SEX: Male

DAY ON TEST: 639

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R187

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular [Leukemia Mononuclear TGLS = 11-6,1-10,9-17,7-16,10-2]		Leukemia Mononuclear	
* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 11-6,1-10,9-17,7-16,10-2]		Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 11-6,1-10,9-17,7-16,10-2]		Leukemia Mononuclear	
Mesentery [Necrosis TGLS = 5-15]	Fat	Necrosis	Moderate
* Nose		Thrombosis	Minimal
* Preputial Gland [Ectasia TGLS = 2-9]		Ectasia	Moderate
* Spleen [Leukemia Mononuclear TGLS = 6-3]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 3,4-19]	Bilateral, Interstit Cell	Adenoma	
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear Cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 188

TRT#: 5

SEX: Male

DAY ON TEST: 455

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R188

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Pituitary Gland

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign Granuloma Sperm	Minimal Moderate
* Epididymis [Granuloma Sperm TGLS = 5-9]			
* Kidney		Nephropathy	Minimal
* Liver [Leukemia Mononuclear TGLS = 2-4]	Bile Duct	Hyperplasia Leukemia Mononuclear	Mild
* Lung [Leukemia Mononuclear TGLS = 4-5,6]	Alveolus	Hyperplasia Inflammation Leukemia Mononuclear Proteinosis	Macrophage, Mild Chronic Active, Minimal Minimal
Lymph Node [Pigmentation TGLS = 3-15]	Renal	Pigmentation	Moderate
* Spleen [Leukemia Mononuclear TGLS = 1-3]		Leukemia Mononuclear	
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 188

TRT#: 5

SEX: Male

DAY ON TEST: 455

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R188

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=mononuclear cell leukemia

Animal Note: TGL noted as "renal"=probably ILIAC LN w/ tattoo pigment

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 190

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Natural Death

DAY ON TEST: 601

HISTO: RZ116/R190

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Ileum	* Intestine Small, Jejunum
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OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign Pheochromocytoma Malignant	
[Pheochromocytoma Malignant TGLS = 3-14,16]			
* Bone		Hyperostosis	
Note: turbinate			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
* Liver	Hepatocyte	Necrosis	Moderate
Note: centrilobular necrosis, acute			
Note: fixation artifacts			
* Lung	Alveolus	Fibrosis	Mild
		Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 9-5,6]			
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 4-15]			
* Pancreas		Atrophy	Mild
* Pituitary Gl			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 190	TRT#: 5	SEX: Male	DAY ON TEST: 601
	DOSE: 0.15 MG/M3	DISP: Natural Death	HISTO: RZ116/R190

ORGAN AND ACCOUNTABLE SITE STATUS

Note: fixation artifacts

* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
[Adenoma TGLS = 1,2-18]			
* Thymus			
Note: TGL"RED"=congestion=not signif.lesion			
* Urinary Bladder		Calculus Micro Observation Only	
[Calculus Micro Observation Only TGLS = 10-8]			

PRIMARY CAUSE OF DEATH -

Animal Note: COD=Malign.Pheochromocytoma

Animal Note: TGL MedLN"RED"=congestion=not signif lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 191

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R191

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 7-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin	Tail	Hyperkeratosis	Moderate
		Keratoacanthoma	
[Hyperkeratosis TGLS = 2-16]			
[Keratoacanthoma TGLS = 1-17]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 191	TRT#: 5	SEX: Male	DAY ON TEST: 733
	DOSE: 0.15 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/R191

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Fibrosis	Marked
		Hyperplasia	Lymphoid, Moderate
[Fibrosis TGLS = 6-15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Moderate
[Adenoma TGLS = 3,4-19]			
[Degeneration TGLS = 5-19]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 192

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R192

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 192

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R192

ORGAN AND ACCOUNTABLE SITE STATUS

Note: ADENOMA DX based on atypia

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2,3-17]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 193

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R193

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Minimal
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular Inflammation	Mild Chronic Active, Mild
[Hyperplasia TGLS = 4-5,6]			
[Hyperplasia TGLS = 4-5,6]			
[Inflammation TGLS = 5-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Mild
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
* Lymph Node, Mediastinal		Leukemia Mononuclear	
* Nose		Inflammation	Chronic Active, Marked
Note: unilateral inflammation			
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 193	TRT#: 5	SEX: Male	DAY ON TEST: 736
	DOSE: 0.15 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/R193

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 6-14]	Pars Distalis	Angiectasis	Moderate
* Spleen		Fibrosis	Moderate
[Fibrosis TGLS = 2-15]		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]			
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 3-17]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 194

TRT#: 5

SEX: Male

DAY ON TEST: 638

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R194

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Atrophy	Moderate
Eye		Cataract	Marked
	Retina	Degeneration	Moderate
[Cataract TGLS = 1-16]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Liver	Centrilobular	Atrophy	Mild
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Minimal
Note: leukemia affects grading			
[Leukemia Mononuclear TGLS = 9-5,6]			
Lymph Node	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-2,6-18,8-6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 194

TRT#: 5

SEX: Male

DAY ON TEST: 638

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R194

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial [Leukemia Mononuclear TGLS = 7-2,6-18,8-6]		Leukemia Mononuclear	
* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 7-2,6-18,8-6]		Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 7-2,6-18,8-6]		Leukemia Mononuclear	
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
* Skin [Keratoacanthoma TGLS = 2-17]		Keratoacanthoma	
* Spleen [Leukemia Mononuclear TGLS = 5-3,15]		Leukemia Mononuclear	
* Stomach, Glandular		Necrosis	Focal, Mild
* Testes [Adenoma TGLS = 3,4-20]	Bilateral, Interstit Cell Germinal Epith	Adenoma Degeneration	Marked
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 195

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R195

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
Coagulating Gland		Pheochromocytoma Benign	
[Inflammation TGLS = 1-15]		Inflammation	Moderate
* Heart		Cardiomyopathy	Minimal
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
[Inflammation TGLS = 2-5,6]	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Atrophy	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 195

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R195

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Moderate

[Adenoma TGLS = 3-14]

* Preputial Gland

Inflammation

Minimal

* Spleen

Hyperplasia

Lymphoid, Mild

* Testes

Interstit Cell

Adenoma

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 196	TRT#: 7	SEX: Male	DAY ON TEST: 199
	DOSE: 0.15 LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-R196

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney * Nose

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 2-3,4]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
[Hyperplasia TGLS = 3-2]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Minimal
[Hyperplasia TGLS = 3-2]			
Urinary Bladder		Calculus Micro Observation Only	
[Calculus Micro Observation Only TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 197

TRT#: 5

SEX: Male

DAY ON TEST: 642

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R197

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Brain	Cerebrum	Leukemia Mononuclear Compression Leukemia Mononuclear	
[Compression TGLS = 9-1]			
Coagulating Gland		Inflammation	Moderate
[Inflammation TGLS = 3-15]			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney	Renal Tubule	Nephropathy	Moderate
	Centrilobular	Pigmentation	Mild
* Liver		Atrophy	Mild
	Bile Duct	Basophilic Focus	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: CaDX based on epithelial anaplasia, focal growth			
[Leukemia Mononuclear TGLS = 2-4]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolus	Fibrosis	Minimal
		Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Leukemia Mononuclear	
		Proteinosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 197

TRT#: 5

SEX: Male

DAY ON TEST: 642

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R197

ORGAN AND ACCOUNTABLE SITE STATUS

Note: leukemic infiltrate in inflam. foci, interferes

Note: AB/Ca has solid/tubular pattern, little inflam.

[Inflammation TGLS = 7-5,6]

* Lymph Node, Bronchial

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-8,5-2,6-6]

* Lymph Node, Mandibular

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-8,5-2,6-6]

* Lymph Node, Mediastinal

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-8,5-2,6-6]

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-8,5-2,6-6]

* Nose

Inflammation

Chronic Active, Mild

* Pituitary Gland

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 8-14]

* Spleen

Leukemia Mononuclear

* Testes

Interstit Cell

Adenoma

Germinal Epith

Degeneration

Moderate

[Adenoma TGLS = 4-17]

* Thymus

Leukemia Mononuclear

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 198

TRT#: 7

SEX: Male

DAY ON TEST: 199

DOSE: 0.15 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-R198

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Nose

OBSERVATIONS

* Lung

Alveolus
Interstitialium

Hyperplasia
Infiltration Cellular
Inflammation

Macrophage, Mild
Minimal
Chronic Active, Minimal

[Hyperplasia TGLS = 2-3,4]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Minimal

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Minimal

Urinary Bladder

Calculus Micro Observation Only

[Calculus Micro Observation Only TGLS = 1-9]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 199

TRT#: 5

SEX: Male

DAY ON TEST: 713

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R199

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Nose	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Leukemia Mononuclear	
* Brain	Cerebrum	Leukemia Mononuclear	
	[Compression TGLS = 11-1]	Compression	
Coagulating Gland		Inflammation	Mild
	[Inflammation TGLS = 5-17]		
* Heart		Cardiomyopathy	Minimal
		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-4,16]		
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Mild

Note: Leukemic infiltrate account for TGL "Nodules"

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 199

TRT#: 5

SEX: Male

DAY ON TEST: 713

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R199

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 6,7,8,9-5,6]			
Lymph Node	Axillary	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-18]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-18]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-18]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-18]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-18]			
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
Note: Difficult to tell adenoma from leukemia			
[Adenoma TGLS = 10-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3,15]			
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 4-20]			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 200

TRT#: 7

SEX: Male

DAY ON TEST: 199

DOSE: 0.15 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-R200

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lymph Node, Bronchial

* Nose

OBSERVATIONS

* Lung

Alveolus

Hyperplasia

Macrophage, Mild

Bronchus

Hyperplasia

Lymphoid, Mild

Interstitialium

Infiltration Cellular

Minimal

Inflammation

Chronic Active, Mild

Metaplasia

Osseous, Minimal

[Hyperplasia TGLS = 2-3,4]

[Hyperplasia TGLS = 2-3,4]

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Minimal

Urinary Bladder

Calculus Micro Observation Only

[Calculus Micro Observation Only TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 201

TRT#: 5

SEX: Male

DAY ON TEST: 661

DOSE: 0.15 MG/M3

DISP: Natural Death

HISTO: RZ116/R201

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Parathyroid Gland

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
[Pheochromocytoma Benign TGLS = 6-14]			
* Bone Marrow		Leukemia Mononuclear	
Eye	Iris	Inflammation	Mild
[Inflammation TGLS = 1-16,17]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-4]			
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 201

TRT#: 5

DOSE: 0.15 MG/M3

SEX: Male

DISP: Natural Death

DAY ON TEST: 661

HISTO: RZ116/R201

ORGAN AND ACCOUNTABLE SITE STATUS

Note: leukemia obscures much

[Leukemia Mononuclear TGLS = 9,10-5,6,18]

* Lymph Node, Bronchial

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 8-6]

* Lymph Node, Mandibular

Hyperplasia

Plasma Cell, Moderate

* Lymph Node, Mediastinal

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 8-6]

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 8-6]

* Pancreas

Atrophy

Moderate

* Pituitary Gland

Pars Distalis

Hyperplasia

Mild

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-3,15]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2,3-20]

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 202

TRT#: 5

SEX: Male

DAY ON TEST: 736

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R202

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 5-14]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: fixation artifacts			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
Note: scant PAS+ material, + for collagen			
	[Hyperplasia TGLS = 6-5,6]		
	[Inflammation TGLS = 7-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 202	TRT#: 5	SEX: Male	DAY ON TEST: 736
	DOSE: 0.15 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/R202

ORGAN AND ACCOUNTABLE SITE STATUS

* Parathyroid Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 8-14]			
* Skin		Basal Cell Carcinoma	
Note: Ca DX based on anaplasia			
[Basal Cell Carcinoma TGLS = 1-16]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2,3-18]			
Tissue NOS			
Note: TNOS=Skin			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 203

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R203

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| Coagulating Gland | * Epididymis | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Parathyroid Gland | * Pituitary Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

- * Lymph Node, Mediastinal

OBSERVATIONS

- | | | | |
|--------------------------|---|----------------------------|----------------------|
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Marked |
| * Liver | | Basophilic Focus | |
| | Bile Duct | Hepatodiaphragmatic Nodule | |
| | [Hepatodiaphragmatic Nodule TGLS = 4-4] | Hyperplasia | Mild |
| * Lung | | Fibrosis | Minimal |
| | Alveolus | Hyperplasia | Macrophage, Mild |
| | Interstitium | Infiltration Cellular | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | Alveolus | Proteinosis | Minimal |
| | [Inflammation TGLS = 6-5,6,7-15] | | |
| * Lymph Node, Bronchial | | Hyperplasia | Lymphoid, Mild |
| | | Hyperplasia | Macrophage, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphoid, Mild |
| * Pancreas | | Atrophy | Moderate |
| * Spleen | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 1-3] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 203

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R203

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2,3-17]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 205

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R205

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
	Atrium	Leukemia Mononuclear	
	[Thrombosis TGLS = 8-16]	Thrombosis	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Moderate
	[Leukemia Mononuclear TGLS = 6-4]	Leukemia Mononuclear	
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 11-6,5]		
Lymph Node	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 10-6,7-8,5-15,9-2]		
* Lymph Node, Bronchial		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 205

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R205

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 10-6,7-8,5-15,9-2]		
* Lymph Node, Mandibular		Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 10-6,7-8,5-15,9-2]		
* Lymph Node, Mediastinal		Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 10-6,7-8,5-15,9-2]		
* Lymph Node, Mesenteric		Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 10-6,7-8,5-15,9-2]		
* Nose		Leukemia Mononuclear
* Pancreas		Leukemia Mononuclear
* Preputial Gland		Adenoma
[Adenoma TGLS = 1-9]		
* Spleen		Leukemia Mononuclear Pigmentation
		Hemosiderin, Mild
* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 2,3-17]		
* Thymus		Leukemia Mononuclear
* Urinary Bladder		Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 206

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R206

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	Coagulating Gland	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Marked
	Alveolus	Proteinosis	Minimal
	[Inflammation TGLS = 5-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Sem Ves			

Note: Vessecles lack fluid but not abnormal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 206

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R206

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hyperplasia	Lymphoid, Moderate
* Testes	Bilateral, Interstit Cell Germinal Epith	Adenoma Degeneration	Moderate
[Adenoma TGLS = 2,3-17]			
[Degeneration TGLS = 4-17]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 207

TRT#: 5

SEX: Male

DAY ON TEST: 594

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R207

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	Coagulating Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Adrenal Medulla	* Intestine Large, Rectum
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OBSERVATIONS

* Brain		Oligodendroglioma Nos	
[Oligodendroglioma Nos TGLS = 10-1]			
* Epididymis		Granuloma Sperm	Moderate
[Granuloma Sperm TGLS = 3-17]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
* Liver	Centrilobular	Atrophy	Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Mild
[Hyperplasia TGLS = 11-5,6]			
Lymph Node	Iliac	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-18,4-19,9-8]			
[Leukemia Mononuclear TGLS = 8-18,4-19,9-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 207

TRT#: 5

SEX: Male

DAY ON TEST: 594

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R207

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial [Leukemia Mononuclear TGLS = 8-18,4-19,9-8]	Leukemia Mononuclear	
* Lymph Node, Mandibular [Leukemia Mononuclear TGLS = 8-18,4-19,9-8]	Leukemia Mononuclear	
* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 8-18,4-19,9-8]	Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 8-18,4-19,9-8]	Leukemia Mononuclear	
* Nose Note: assoc w/ foreign body	Inflammation	Chronic Active, Moderate
* Pancreas	Atrophy	Moderate
* Spleen [Infarct TGLS = 6-16] [Leukemia Mononuclear TGLS = 5,7-3,15,16]	Infarct Leukemia Mononuclear	Marked
* Testes [Adenoma TGLS = 1,2-21]	Bilateral, Interstit Cell Adenoma	
* Thymus	Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: leukemia widespread

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 208

TRT#: 5

SEX: Male

DAY ON TEST: 570

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R208

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Brain	Cerebrum	Compression	
[Compression TGLS = 3-1]			
* Kidney	Renal Tubule	Nephropathy	Mild
		Pigmentation	Mild
* Liver		Degeneration	Cystic, Minimal
		Hepatocellular Adenoma	
* Lung	Alveolus	Fibrosis	Mild
	Interstitium	Hyperplasia	Macrophage, Moderate
		Infiltration Cellular	Mild
	Alveolus	Inflammation	Chronic Active, Mild
[Hyperplasia TGLS = 1-5,6]		Proteinosis	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-14]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 209

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R209

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Bone	* Bone Marrow	* Lymph Node, Mandibular	
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OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Angiectasis	Minimal
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
		[Hyperplasia TGLS = 6-5,6]	
		[Inflammation TGLS = 7-5,6]	
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mediastinal		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 209

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R209

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 1-9]			
* Spleen		Mesothelioma Nos	Metastatic (Uncertain Primary Site)
[Mesothelioma Nos TGLS = 5-3]			
* Testes	Bilateral, Interstit Cell Tunic	Adenoma Mesothelioma Nos	
[Adenoma TGLS = 3,4-17]			
[Mesothelioma Nos TGLS = 2-15]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 210

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R210

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 3-14]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Note: no mineralization seen at histo.		
	[Nephropathy TGLS = 4-3]		
* Liver	Centrilobular	Atrophy	Moderate
		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Necrosis	Minimal
	Note: necrosis is one focus		
* Lung	Alveolus	Fibrosis	Mild
	Interstitium	Hyperplasia	Macrophage, Mild
		Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	[Hyperplasia TGLS = 8-5,6]		
	[Inflammation TGLS = 9-5,6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 210

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R210

ORGAN AND ACCOUNTABLE SITE STATUS

* Parathyroid Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Adenoma TGLS = 7-14]			
* Spleen		Atrophy	Moderate
		Fibrosis	Marked
[Atrophy TGLS = 1-3]			
[Fibrosis TGLS = 2-3]			
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland			
Note: TGL Thyroid=Hyperplastic parathyroids			

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL renal ln = sinus erythrocytosis=not sigif. lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 282

TRT#: 9

SEX: Male

DAY ON TEST: 590

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S282

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart	Atrium	Thrombosis	
Note: thrombus of leukemic cells [Thrombosis TGLS = 5-16]			
* Kidney		Infarct	Moderate
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
[Infarct TGLS = 3-15]			
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: many fixation artefacts(foci) on liver section [Leukemia Mononuclear TGLS = 2-4]			
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 282

TRT#: 9

SEX: Male

DAY ON TEST: 590

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S282

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 6-5,6]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Mild

* Lymph Node, Mesenteric

Leukemia Mononuclear

* Pancreas

Atrophy

Moderate

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-3]

* Testes

Interstit Cell

Adenoma

[Adenoma TGLS = 7-17]

* Thymus

Degeneration

Marked

* Thyroid Gland

C Cell

Hyperplasia

Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 283

TRT#: 9

SEX: Male

DAY ON TEST: 643

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S283

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
Eye	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

* Thymus

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla	Bilateral	Leukemia Mononuclear Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 7-14]		
* Bone Marrow		Leukemia Mononuclear	
Eye			
	Note: TGL"red fluid"=normal chromoporphyrins		
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear Nephropathy	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Leukemia Mononuclear Necrosis	Mild
	[Leukemia Mononuclear TGLS = 8-4]		
* Lung	Alveolus	Hyperplasia Inflammation	Macrophage, Mild Chronic Active, Marked
	Alveolus	Leukemia Mononuclear Proteinosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 283

TRT#: 9

SEX: Male

DAY ON TEST: 643

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S283

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 11-5,6]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Mild

Hyperplasia

Macrophage, Minimal

[Hyperplasia TGLS = 10-6,10-6,1-10,1-10]

[Hyperplasia TGLS = 10-6,10-6,1-10,1-10]

* Lymph Node, Mandibular

Hyperplasia

Plasma Cell, Mild

[Hyperplasia TGLS = 10-6,1-10]

* Nose

Olfactory Epi

Atrophy

Mild

Inflammation

Chronic Active, Moderate

* Pancreas

Atrophy

Moderate

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-3]

* Testes

Interstit Cell

Adenoma

Germinal Epith

Degeneration

Marked

[Adenoma TGLS = 3-17]

[Degeneration TGLS = 4-17]

* Thyroid Gland

C Cell

Hyperplasia

Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artefacts in epithelium,cecum

Animal Note: CO/MSAC=mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 284

TRT#: 9

SEX: Male

DAY ON TEST: 648

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S284

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Marked
		Pigmentation	Mild
* Larynx		Inflammation	Minimal
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
	[Hyperplasia TGLS = 6-4]		
	[Leukemia Mononuclear TGLS = 7-4]		
* Lung		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Note: Alv Bron Carc has Squamous Differentiation.		
	[Alveolar/Bronchiolar Carcinoma TGLS = 11-16]		
	[Inflammation TGLS = 10-5,6]		
* Lymph Node, Bronchial		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 284

TRT#: 9

SEX: Male

DAY ON TEST: 648

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S284

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 9-6,8-2]		
* Lymph Node, Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-6,8-2]		
* Pancreas	Atrophy	Moderate
* Pituitary Gland	Leukemia Mononuclear	
* Seminal Vesicle	Atrophy	Moderate
* Spleen	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3,15,3-15]		
* Testes	Germinal Epith	Degeneration
[Degeneration TGLS = 4-19]		Marked
* Thymus	Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: PanLN congested w/ hemosiderin=not signif. lesion

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 286

TRT#: 9

SEX: Male

DAY ON TEST: 458

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S286

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
--------------------------	---------------------------

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 1-5]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 287

TRT#: 11

SEX: Male

DAY ON TEST: 199

DOSE: 1.0 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-S287

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lymph Node, Mediastinal

* Nose

OBSERVATIONS

* Lung

Alveolus

Hyperplasia

Macrophage, Moderate

Bronchus

Hyperplasia

Lymphoid, Minimal

Interstitialium

Infiltration Cellular

Minimal

Inflammation

Chronic Active, Minimal

Alveolus

Proteinosis

Moderate

[Hyperplasia TGLS = 3-3,4]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Minimal

[Hyperplasia TGLS = 2-2]

Urinary Bladder

Calculus Micro Observation Only

[Calculus Micro Observation Only TGLS = 1-7]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 288

TRT#: 9

SEX: Male

DAY ON TEST: 711

DOSE: 1.0 MG/M3

DISP: Natural Death

HISTO: RZ116/S288

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign Pheochromocytoma Malignant	
	[Pheochromocytoma Malignant TGLS = 4-14]		
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Nephropathy	Moderate
* Larynx		Inflammation	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
	Note: fixation artifacts on capsular surfaces		
	[Hepatodiaphragmatic Nodule TGLS = 5-16]		
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Moderate
	[Fibrosis TGLS = 7-5,6]		
	[Inflammation TGLS = 6-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Mild
* Pancreas		Atrophy	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 288

TRT#: 9

SEX: Male

DAY ON TEST: 711

DOSE: 1.0 MG/M3

DISP: Natural Death

HISTO: RZ116/S288

ORGAN AND ACCOUNTABLE SITE STATUS

Pharynx		Squamous Cell Papilloma	
Note: involves soft palate & nasopharynx			
Note: see slide #13			
* Preputial Gland		Inflammation	Mild
* Spleen		Atrophy	Moderate
		Fibrosis	Moderate
[Fibrosis TGLS = 1-15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2,3-18]			
* Thymus		Degeneration	Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: CaDX based on capsular invasion

Animal Note: COD=?? Pharyngeal papilloma may block oral/nasal passages

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 289

TRT#: 9

SEX: Male

DAY ON TEST: 594

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S289

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
Note: fixation artifacts present			
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 2-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
* Nose	Olfactory Epi	Atrophy	Minimal
		Inflammation	Chronic Active, Marked
Note: inflam. assoc W/ foreign body			
* Pituitary Gland	Pars Distalis	Adenoma	
Note: CaDX based on anaplasia			
[Adenoma TGLS = 3-14]			
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 289

TRT#: 9

SEX: Male

DAY ON TEST: 594

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S289

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-3]

* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Moderate
* Thymus		Degeneration	Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=???

Animal Note: many lesions but none seems severe enough

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 290

TRT#: 9

SEX: Male

DAY ON TEST: 552

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S290

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Marked
		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver	Centrilobular	Atrophy	Moderate
		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	Hepatocyte	Necrosis	Mild
	[Leukemia Mononuclear TGLS = 6-15,5-4,15]		
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Marked
	[Hyperplasia TGLS = 10-5,6]		
	[Leukemia Mononuclear TGLS = 9-5,6]		
Lymph Node	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-16,11-6,8-2]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-16,11-6,8-2]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 290

TRT#: 9

SEX: Male

DAY ON TEST: 552

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S290

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular [Leukemia Mononuclear TGLS = 4-16,11-6,8-2]		Leukemia Mononuclear	
* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 4-16,11-6,8-2]		Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 4-16,11-6,8-2]		Leukemia Mononuclear	
* Nose		Thrombosis	Minimal
* Pancreas		Atrophy	Mild
* Spleen [Leukemia Mononuclear TGLS = 1-3]		Leukemia Mononuclear	
* Stomach, Forestomach [Ulcer TGLS = 13-7]		Ulcer	Marked
* Stomach, Glandular [Necrosis TGLS = 12-7]		Necrosis	Focal, Minimal
* Testes [Adenoma TGLS = 3-18]	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
* Thymus Note: TGL"red"must be MEDIASTINAL LN nb		Degeneration	Marked

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: TGL"yellow pigm"=not considered lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 291

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S291

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Malignant	
* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	
		Nephropathy	Marked
			[Cyst TGLS = 7-15]
			[Nephropathy TGLS = 6-3]
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Marked
	Interstitialium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
			[Inflammation TGLS = 9-5,6]
			[Proteinosis TGLS = 8-5,6]
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
* Nose	Nasolacrim Dct	Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 291

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S291

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

* Preputial Gland

Hyperplasia

Marked

[Hyperplasia TGLS = 2-9]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 3,4-18]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 292

TRT#: 9

SEX: Male

DAY ON TEST: 458

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S292

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | | | |

OBSERVATIONS

- | | | | |
|---|----------------|---------------------------------|-------------------------|
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Minimal |
| * Liver | | Basophilic Focus | |
| * Lung | Alveolus | Emphysema | Mild |
| | Alveolus | Hyperplasia | Macrophage, Mild |
| | Interstitium | Infiltration Cellular | Mild |
| | | Inflammation | Chronic Active, Minimal |
| | | Metaplasia | Osseous, Minimal |
| | Alveolus | Proteinosis | Marked |
| [Proteinosis TGLS = 3-5] | | | |
| * Lymph Node, Bronchial | | Hyperplasia | Macrophage, Minimal |
| | | Hyperplasia | Lymphoid, Mild |
| * Spleen | | Hyperplasia | Lymphoid, Mild |
| * Testes | Interstit Cell | Adenoma | |
| [Adenoma TGLS = 1-15] | | | |
| * Urinary Bladder | | Calculus Micro Observation Only | |
| [Calculus Micro Observation Only TGLS = 2-16] | | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 293	TRT#: 11	SEX: Male	DAY ON TEST: 199
	DOSE: 1.0 LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ16-S293

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney * Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Marked
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
	[Hyperplasia TGLS = 3-3,4]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
	[Hyperplasia TGLS = 2-2]		
* Nose		Inflammation	Chronic Active, Minimal
Urinary Bladder		Calculus Micro Observation Only	
	[Calculus Micro Observation Only TGLS = 1-7]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 294

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S294

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Moderate
	[Nephropathy TGLS = 7-3]		
* Liver		Basophilic Focus	
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Hepatocellular Adenoma TGLS = 5-17]		
	[Leukemia Mononuclear TGLS = 4-4,17]		
* Lung	Alveolus	Fibrosis	Minimal
		Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Note: Leukemic infiltrates partially obscure grading		
	[Inflammation TGLS = 11-5,6]		
Lymph Node	Iliac	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 10-6,8-19,9-2,6-18]		
	[Leukemia Mononuclear TGLS = 10-6,8-19,9-2,6-18]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 294

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S294

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial [Leukemia Mononuclear TGLS = 10-6,8-19,9-2,6-18]		Leukemia Mononuclear	
* Lymph Node, Mandibular [Leukemia Mononuclear TGLS = 10-6,8-19,9-2,6-18]		Leukemia Mononuclear	
* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 10-6,8-19,9-2,6-18]		Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 10-6,8-19,9-2,6-18]		Leukemia Mononuclear	
* Pancreas		Atrophy	Moderate
* Skin [Squamous Cell Papilloma TGLS = 1-16]	Nose	Squamous Cell Papilloma	
* Spleen [Leukemia Mononuclear TGLS = 2-3,15,3-3]		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 295

TRT#: 9

SEX: Male

DAY ON TEST: 703

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S295

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Liver		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: fixation artifacts of surface [Hepatocellular Adenoma TGLS = 3-16]			
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Hyperplasia TGLS = 5-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose	Olfactory Epi	Atrophy	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 295	TRT#: 9	SEX: Male	DAY ON TEST: 703
	DOSE: 1.0 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/S295

ORGAN AND ACCOUNTABLE SITE STATUS

Note: inflam. assoc w/ foreign body		Inflammation	Chronic Active, Moderate
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-15,1-2,15]	Leukemia Mononuclear	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
	[Adenoma TGLS = 6-18]		
* Thymus		Degeneration	Marked

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 296

TRT#: 9

SEX: Male

DAY ON TEST: 723

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S296

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
		Pheochromocytoma Malignant	
	[Pheochromocytoma Benign TGLS = 5-14]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
	[Hyperplasia TGLS = 4-4]		
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Moderate
	[Inflammation TGLS = 9-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 296

TRT#: 9

DOSE: 1.0 MG/M3

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 723

HISTO: RZ116/S296

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mediastinal		Leukemia Mononuclear	
* Nose	Olfactory Epi	Leukemia Mononuclear	
		Atrophy	Minimal
		Inflammation	Chronic Active, Marked
Note: inflam assoc w/ foreign body			
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[Fibrosis TGLS = 3-3]			
[Leukemia Mononuclear TGLS = 2-3,15]			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Marked
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 6-17]			
[Degeneration TGLS = 7-17]			
* Thymus		Degeneration	Marked
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 8-2]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 297

TRT#: 9

SEX: Male

DAY ON TEST: 678

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S297

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
	Hepatocyte	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-4]	Necrosis	Mild
* Lung	Alveolar Epith	Hyperplasia	Focal, Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Leukemia Mononuclear	
	[Hyperplasia TGLS = 7-15]	Proteinosis	Minimal
	[Hyperplasia TGLS = 7-15]		
	[Inflammation TGLS = 8-5,6,15]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-2,9-6]		
* Lymph Node, Mediastinal		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 297

TRT#: 9

SEX: Male

DAY ON TEST: 678

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S297

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 6-2,9-6]

* Nose Olfactory Epi Mineralization Focal, Moderate

* Pituitary Gland Pars Distalis

Cyst

[Cyst TGLS = 10-14]

* Seminal Vesicle Atrophy Moderate

* Spleen Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-3]

* Testes Bilateral, Interstit Cell Adenoma

[Adenoma TGLS = 2,3-17]

* Thymus Degeneration Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Leukemia & pneumonia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 298

TRT#: 9

SEX: Male

DAY ON TEST: 703

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S298

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

* Seminal Vesicle

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
		Pheochromocytoma Malignant	
	[Pheochromocytoma Benign TGLS = 2-14]		
	[Pheochromocytoma Malignant TGLS = 2-14]		
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Thrombosis	
	Note: 1 large white thrombus in hepatic[?] vein		
	Note: fixation artifacts present		
* Lung		Chordoma	Metastatic (Tissue Nos)
		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Marked
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 298

TRT#: 9

SEX: Male

DAY ON TEST: 703

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S298

ORGAN AND ACCOUNTABLE SITE STATUS

Alveolus	Proteinosis	Marked
Note: large tumor thrombi plug pulmonary arteries		
Note: hemorrhage/hemosiderin gives brown color to foci		
[Hyperplasia TGLS = 7-5,6,15]		
[Inflammation TGLS = 8-5,6,15]		
* Lymph Node, Bronchial	Hyperplasia	Macrophage, Mild
	Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 6-6,6-6,4-2,4-2]		
[Hyperplasia TGLS = 6-6,6-6,4-2,4-2]		
* Lymph Node, Mediastinal	Hyperplasia	Lymphoid, Marked
[Hyperplasia TGLS = 6-6,4-2]		
* Pancreas	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma
[Adenoma TGLS = 5-14]		
* Spleen	Leukemia Mononuclear	
* Testes	Adenoma	
	Interstitial Cell	
	Germinal Epith	Moderate
	Interstitial Cell	
	Hyperplasia	Moderate
* Thymus	Degeneration	Marked
* Thyroid Gland	C Cell	Adenoma

PRIMARY CAUSE OF DEATH

-

Animal Note: Fixation artifacts in cecal epithelium

Animal Note: CO/MSAC=Hydrothorax from pheochromo.mets to lung

Animal Note: CaDX based on tumor thrombus in vein outside capsule

Animal Note: a tumor in each medulla

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 299

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S299

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Nose	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Malignant	
	[Pheochromocytoma Malignant TGLS = 3-14]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
		Pheochromocytoma Malignant	Metastatic (Adrenal Medulla)
	Alveolus	Proteinosis	Marked
	[Inflammation TGLS = 4-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mediastinal		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 299

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S299

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Fibrosis	Marked
		Leukemia Mononuclear	
[Fibrosis TGLS = 2-15]			
* Stomach, Forestomach		Squamous Cell Papilloma	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
[Adenoma TGLS = 6-16]			
[Hyperplasia TGLS = 1-18]			

PRIMARY CAUSE OF DEATH

-

Animal Note: Malignant=mets in vessel of lung (slide6)

Animal Note: TGL"red fluid" no cause found

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 300

TRT#: 9

SEX: Male

DAY ON TEST: 559

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S300

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	Coagulating Gland
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Atrophy	Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 4-16]			
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Mild
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: Pit. hugh but no invasion, little anaplasia			
[Adenoma TGLS = 5-14]			
* Preputial Gland		Ectasia	Moderate
[Ectasia TGLS = 1-9]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 300

TRT#: 9

SEX: Male

DAY ON TEST: 559

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S300

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Degeneration

Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 301

TRT#: 9

SEX: Male

DAY ON TEST: 458

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S301

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Thymus
-------------------------	---------------------------	----------

OBSERVATIONS

* Bone Marrow		Granuloma	Mild
* Kidney		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Infiltration Cellular	Mononuclear Cl, Minimal
		Leukemia Mononuclear	
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
	[Proteinosis TGLS = 3-5]		
* Pituitary Gland		Cyst	
* Preputial Gland		Inflammation	Mild
	[Inflammation TGLS = 1-9]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-3]		
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 302

TRT#: 9

SEX: Male

DAY ON TEST: 527

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S302

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Moderate
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
* Liver		Degeneration	Cystic, Mild
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-14]			
* Skin		Fibroma	
[Fibroma TGLS = 1-15]			
* Spleen		Leukemia Mononuclear	
Note: early lesion of Mononuclear cell leukemia			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Moderate
[Adenoma TGLS = 2-16,18]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 302

TRT#: 9

SEX: Male

DAY ON TEST: 527

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S302

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Degeneration

Moderate

Tissue NOS

Note: TGL"TNOS Mass"=skin tumor

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Fibomas of skin

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 303

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S303

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear Pheochromocytoma Benign Pheochromocytoma Malignant	
[Pheochromocytoma Malignant TGLS = 5-14]			
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Nephropathy Pigmentation	Marked Minimal
[Nephropathy TGLS = 6-3]			
* Liver	Bile Duct	Basophilic Focus Degeneration Eosinophilic Focus Hyperplasia Leukemia Mononuclear	Cystic, Minimal Mild
[Eosinophilic Focus TGLS = 12-4]			
* Lung	Alveolus Bronchus Interstitium	Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma Fibrosis Hyperplasia Hyperplasia Infiltration Cellular	Minimal Macrophage, Moderate Lymphoid, Moderate Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 303

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S303

ORGAN AND ACCOUNTABLE SITE STATUS

Alveolus	Inflammation	Chronic Active, Moderate
Note: CaDX based on cytologic anaplasia esp.in center	Proteinosis	Marked
[Alveolar/Bronchiolar Adenoma TGLS = 10-16]		
[Alveolar/Bronchiolar Carcinoma TGLS = 9-15]		
[Hyperplasia TGLS = 10-16]		
[Hyperplasia TGLS = 10-16]		
[Inflammation TGLS = 11-5,6]		
* Lymph Node, Bronchial	Leukemia Mononuclear	
* Lymph Node, Mandibular	Leukemia Mononuclear	
* Lymph Node, Mediastinal	Leukemia Mononuclear	
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Moderate
* Pancreas	Atrophy	Moderate
* Spleen	Fibrosis	Moderate
	Leukemia Mononuclear	
[Fibrosis TGLS = 2-17]		
[Leukemia Mononuclear TGLS = 1-3,17]		
* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 3,4-19]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 304

TRT#: 9

SEX: Male

DAY ON TEST: 663

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S304

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Parathyroid Gland	Penis
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart	Atrium	Thrombosis	
	[Thrombosis TGLS = 10-19]		
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Marked
	Hepatocyte	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-4]		
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Moderate
	[Hyperplasia TGLS = 12-5,6]		
	[Inflammation TGLS = 13-5,6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 304

TRT#: 9

SEX: Male

DAY ON TEST: 663

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S304

ORGAN AND ACCOUNTABLE SITE STATUS

Lymph Node	Axillary	Leukemia Mononuclear	
	Iliac	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-16,1-10,11-6,8-2,7-18]		
	[Leukemia Mononuclear TGLS = 3-16,1-10,11-6,8-2,7-18]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-18,1-10,11-6,8-2,3-16]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-10,8-2,3-16,7-18,11-6]		
* Lymph Node, Mediastinal		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-16,7-18,11-6,8-2,1-10]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 11-6,3-16,7-18,1-10,8-2]		
* Nose		Inflammation	Chronic Active, Marked
Note: inflam. is unilateral			
* Pancreas		Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4,14-3]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 6-20]		
* Thymus		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 9-2]		

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 305

TRT#: 9

SEX: Male

DAY ON TEST: 623

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S305

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Brain	Coagulating Gland	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Mild
* Adrenal Medulla		Hyperplasia	Mild
* Bone	Maxilla	Osteosarcoma	
Note: osseous mass @ base of tooth			
Note: deeper cut{#13a}shows destruct.of normal bone&peridont mem			
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
		Osteosarcoma	Metastatic (Bone)
	Alveolus	Proteinosis	Marked
Note: numerous metastatic tumor nodules			
[Inflammation TGLS = 6-5,6]			
[Osteosarcoma TGLS = 7-5,6,15]			
* Lymph Node, Bronchial		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 305

TRT#: 9

DOSE: 1.0 MG/M3

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 623

HISTO: RZ116/S305

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 5-6,4-2]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-6,4-2]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-6,4-2]			
* Nose		Inflammation	Chronic Active, Moderate
Note: unilateral relate to foreign body			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 2-17]			
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Inflammation	Minimal
Note: focal chronic submucosal inflamm.			
[Inflammation TGLS = 3-8]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Metastatic Osteosarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 307

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S307

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

* Thymus

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Malignant	
	[Pheochromocytoma Malignant TGLS = 6-14]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Carcinoma	
	[Carcinoma TGLS = 4-17]		
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Eosinophilic Focus	
	Bile Duct	Hepatocellular Adenoma	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
	Note: many fixation artifacts on this tissue		
	[Hepatocellular Adenoma TGLS = 9-16]		
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 307

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S307

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 7-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
[Hyperplasia TGLS = 8-6,8-6]			
[Hyperplasia TGLS = 8-6,8-6]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 8-6]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 8-6]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 8-6]			
* Mammary Gland			
Note: no histo evidence tumor is in mammary gland, see SKIN			
* Pancreas		Atrophy	Moderate
* Sem Ves			
Note: lacks fluid, not considered lesion			
* Skin		Fibroma	
Note: no histo evidence this is mammary gland			
[Fibroma TGLS = 1-15]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-3]			
* Testes	Germinal Epith	Degeneration	Minimal
[Degeneration TGLS = 2-19]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: no unequivocal evidence of malignancy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 308

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S308

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Coagulating Gland		Inflammation	Mild
[Inflammation TGLS = 3-15]			
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Minimal
[Nephropathy TGLS = 4-3]			
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Degeneration	Fatty, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Marked
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Moderate

Note: focalfibrosis w/ assoc. epithel hayperplasia

[Fibrosis TGLS = 8-16]

[Hyperplasia TGLS = 6-5,6]

[Hyperplasia TGLS = 6-5,6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 308

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S308

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 7-5,6]

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Marked

Hyperplasia

Macrophage, Minimal

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Moderate

* Pancreas

Atrophy

Minimal

* Pituitary Gland

Pars Distalis

Cyst

Pars Distalis

Hyperplasia

Mild

[Cyst TGLS = 9-14]

* Testes

Interstit Cell

Adenoma

Germinal Epith

Degeneration

Moderate

Interstit Cell

Hyperplasia

Minimal

[Adenoma TGLS = 2-18]

[Degeneration TGLS = 1-18]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 309

TRT#: 9

DOSE: 1.0 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: RZ116/S309

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland	* Parathyroid Gland
-----------------	---------------------

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Malignant	
	[Pheochromocytoma Malignant TGLS = 2-14]		
* Brain		Cyst	
	[Cyst TGLS = 7-1]		
* Heart		Cardiomyopathy	Mild
	Atrium	Thrombosis	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
	Note: TGL"nodule"=focus of marked inflammation		
	[Inflammation TGLS = 5-5,6,16,6-16]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
* Nose		Inflammation	Chronic Active, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 309

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S309

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Marked

[Adenoma TGLS = 8-14]

* Skin

Keratoacanthoma

[Keratoacanthoma TGLS = 1-15]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 3,4-18]

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 310

TRT#: 9

SEX: Male

DAY ON TEST: 509

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S310

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Brain | Coagulating Gland |
| * Epididymis | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Mammary Gland |
| * Pancreas | * Parathyroid Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

INSUFFICIENT TISSUE

- * Lymph Node, Mediastinal

OBSERVATIONS

- | | | | |
|--------------------------|--------------------------------------|----------------------|-----------------------|
| * Adrenal Medulla | | Leukemia Mononuclear | |
| * Bone Marrow | | Inflammation | Suppurative, Moderate |
| * Kidney | | Nephropathy | Moderate |
| | Renal Tubule | Pigmentation | Moderate |
| * Liver | Centrilobular | Atrophy | Moderate |
| | Bile Duct | Hyperplasia | Moderate |
| | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 3-4] | | |
| * Lung | | Fibrosis | Mild |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | | Inflammation | Chronic Active, Mild |
| | | Leukemia Mononuclear | |
| | Alveolus | Proteinosis | Mild |
| | [Inflammation TGLS = 4-5,6] | | |
| * Lymph Node, Bronchial | | Hyperplasia | Plasma Cell, Mild |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 1-10] | | |
| * Lymph Node, Mesenteric | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 1-10] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 310

TRT#: 9

SEX: Male

DAY ON TEST: 509

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S310

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Chronic Active, Marked
Note: associated w/ foreign body, unilateral			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Moderate
[Adenoma TGLS = 5-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3]			
* Testes	Interstit Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 311

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S311

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 4-14]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Intestine Small, Duodenum		Ulcer	Moderate
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
	[Nephropathy TGLS = 5-3]		
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
* Lung		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 311

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S311

ORGAN AND ACCOUNTABLE SITE STATUS

Alveolus	Proteinosis	Marked
Note: much inflammation & hyperplasia in tumor focus		
Note: CaDX based on anaplas.& lymph invas? around vein		
Note: CaDX based on pattern filling alveoli even in center		
[Alveolar/Bronchiolar Carcinoma TGLS = 7-15]		
[Inflammation TGLS = 9-5,6,15]		
[Proteinosis TGLS = 8-5,6,15]		
* Lymph Node, Bronchial	Hyperplasia	Lymphoid, Moderate
	Hyperplasia	Macrophage, Minimal
* Lymph Node, Mediastinal	Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8]		
* Nose	Inflammation	Chronic Active, Minimal
* Pancreas	Atrophy	Minimal
* Pituitary Gland	Hyperplasia	Minimal
	Leukemia Mononuclear	
* Spleen	Fibrosis	Moderate
	Leukemia Mononuclear	
[Fibrosis TGLS = 3-16]		
* Testes	Hyperplasia	Moderate
[Hyperplasia TGLS = 1-18]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 312

TRT#: 9

SEX: Male

DAY ON TEST: 629

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S312

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Brain		Astrocytoma Nos	
Note: central necrosis not typical, cytology is			
Note: in cerebrum			
* Heart		Cardiomyopathy	Minimal
* Kidney	Cortex	Infarct	Moderate
	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Moderate
Note: recent infarct			
[Infarct TGLS = 8-3]			
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
	Hepatocyte	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: fixation artifacts on tissues			
[Eosinophilic Focus TGLS = 7-16]			
[Leukemia Mononuclear TGLS = 6-4,16]			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 312

TRT#: 9

SEX: Male

DAY ON TEST: 629

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S312

ORGAN AND ACCOUNTABLE SITE STATUS

	Alveolus	Leukemia Mononuclear Proteinosis	Mild
	[Inflammation TGLS = 11-5,6]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 9-2,10-6]		
* Lymph Node, Mediastinal		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 9-2,10-6]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 12-14]		
* Preputial Gland		Ectasia	Moderate
	[Ectasia TGLS = 2-9]		
* Salivary Glands		Infarct	Moderate
	Note: recent infarct w/ inflammation		
	[Infarct TGLS = 1-10]		
* Spleen		Fibrosis Leukemia Mononuclear	Marked
	[Fibrosis TGLS = 4-15]		
	[Leukemia Mononuclear TGLS = 3-3,15]		
* Testes	Interstit Cell	Adenoma	
	[Adenoma TGLS = 5-18]		

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: sal. gland&renal infarcts unusual, cause=??

Animal Note: Astrocytoma small,<2 mm diam.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 313

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZX116/S313

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Moderate
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Emphysema	Mild
		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
		[Inflammation TGLS = 2-5,6]	
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Testes	Interstit Cell	Adenoma	
		[Adenoma TGLS = 1-16]	
* Thyroid Gland	C Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 313

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZX116/S313

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 314

TRT#: 9

SEX: Male

DAY ON TEST: 424

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S314

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex		Hyperplasia Vacuolization Cytoplasmic	Focal, Mild Marked
* Heart	Valve	Thrombosis	
Note: fixation artifacts			
* Intestine Large, Cecum		Inflammation	Mild
* Kidney	Renal Tubule	Nephropathy	Mild
	Centrilobular	Pigmentation	Mild
* Liver		Atrophy	Marked
	Bile Duct	Degeneration	Fatty, Mild
		Hyperplasia	Mild
Note: fixation artifacts on liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-4]			
* Lung	Alveolar Epith	Fibrosis	Minimal
	Alveolus	Hyperplasia	Focal, Mild
	Interstitialium	Hyperplasia	Macrophage, Moderate
		Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 6-5,6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 314

TRT#: 9

SEX: Male

DAY ON TEST: 424

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S314

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial

Hyperplasia

Macrophage, Minimal

* Spleen

Hyperplasia

Lymphoid, Minimal

[Leukemia Mononuclear TGLS = 2-3]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 315

TRT#: 9

SEX: Male

DAY ON TEST: 621

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S315

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Fibrosis	Mild
* Heart			
Note: fixation artifacts			
* Intestine Large, Cecum		Inflammation	Moderate
* Kidney	Cortex	Infarct	Mild
	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Moderate
[Infarct TGLS = 4-16]			
* Liver	Centrilobular	Atrophy	Marked
	Bile Duct	Degeneration	Cystic, Moderate
		Hyperplasia	Moderate
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-4]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolus	Fibrosis	Marked
		Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Leukemia Mononuclear	
		Proteinosis	Moderate
Note: marked focal fibrosis w/ AEH			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 315

TRT#: 9

SEX: Male

DAY ON TEST: 621

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S315

ORGAN AND ACCOUNTABLE SITE STATUS

[Alveolar/Bronchiolar Carcinoma TGLS = 11-17]

[Inflammation TGLS = 9-5,6,17]

[Proteinosis TGLS = 8-5,6,17]

* Lymph Node, Bronchial

Hyperplasia

Macrophage, Minimal

Hyperplasia

Lymphoid, Minimal

[Hyperplasia TGLS = 10-6,10-6]

[Hyperplasia TGLS = 10-6,10-6]

* Lymph Node, Mandibular

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 6-8,7-2]

* Lymph Node, Mediastinal

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 6-8,7-2]

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 6-8,7-2]

* Pancreas

Atrophy

Mild

* Pituitary Gland

Pars Distalis

Hyperplasia

Minimal

* Spleen

Fibrosis

Moderate

Leukemia Mononuclear

[Fibrosis TGLS = 3-15]

[Leukemia Mononuclear TGLS = 2-3,15]

* Stomach, Forestomach

Hyperplasia

Squamous, Moderate

* Stomach, Glandular

Necrosis

Focal, Mild

* Testes

Interstit Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: fixation artifacts on cecum

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 316

TRT#: 9

SEX: Male

DAY ON TEST: 578

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S316

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Necrosis	Minimal
* Adrenal Medulla		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Moderate
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: fixation artifacts			
[Leukemia Mononuclear TGLS = 4-4]			
* Lung		Leukemia Mononuclear	
	Alveolus	Proteinosis	Marked
Note: histo grading obscured by leukemia infiltrates			
[Leukemia Mononuclear TGLS = 8-5,6,16,10-5,6,16]			
[Proteinosis TGLS = 9-5,6,16]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-6]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 316

TRT#: 9

SEX: Male

DAY ON TEST: 578

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S316

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 7-6]		Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 7-6]		Leukemia Mononuclear	
* Nose		Leukemia Mononuclear	
* Pancreas		Thrombosis	Minimal
* Pituitary Gl Note: fixation artifacts		Atrophy	Moderate
* Spleen [Fibrosis TGLS = 3-15] [Leukemia Mononuclear TGLS = 2-3,15]		Fibrosis Leukemia Mononuclear	Moderate
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
* Testes [Adenoma TGLS = 5-17,6-19]	Bilateral, Interstit Cell	Adenoma	
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 317

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S317

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
	Bilateral	Thrombosis	Marked
	[Pheochromocytoma Benign TGLS = 4-14]		
* Heart		Cardiomyopathy	Minimal
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Marked
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked

Note: Alv Bron Carc has Squamous Differentiation.

Note: Ca called AB Ca because AB component more anaplastic

Note: Ca has adenosuamous differentiation

[Alveolar/Bronchiolar Carcinoma TGLS = 6-15]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 317	TRT#: 9	SEX: Male	DAY ON TEST: 736
	DOSE: 1.0 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/S317

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 7-5,6,16]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Pancreas		Atrophy	Moderate
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Mild
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 2-19]			
[Degeneration TGLS = 3-19]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 318

TRT#: 9

DOSE: 1.0 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: RZ116/S318

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
Note: fixation artifacts here			
* Lung		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Moderate
	Alveolar Epith	Hyperplasia	Focal, Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Marked
	Alveolus	Proteinosis	Marked
[Hyperplasia TGLS = 3-15]			
[Hyperplasia TGLS = 3-15]			
[Hyperplasia TGLS = 3-15]			
[Inflammation TGLS = 2-5.6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Marked
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 318

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S318

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric

Hyperplasia

Lymphoid, Mild

* Pancreas

Atrophy

Moderate

* Pituitary Gland

Pars Distalis

Hyperplasia

Mild

* Testes

Interstit Cell

Adenoma

[Adenoma TGLS = 1-17]

* Urinary Bladder

Calculus Micro Observation Only

[Calculus Micro Observation Only TGLS = 4-8]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 320

TRT#: 9

SEX: Male

DAY ON TEST: 650

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S320

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Carcinoma	
* Kidney		Nephropathy	Mild
Note: TGL "Kidney"=retroperitoneal mass see "TNOS"			
* Liver		Basophilic Focus	
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 2-6,2-6]			
[Hyperplasia TGLS = 2-6,2-6]			
* Pancreas		Atrophy	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 320

TRT#: 9

SEX: Male

DAY ON TEST: 650

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S320

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1,5-18]

Tissue NOS

Abdominal

Fibrosarcoma

Note: masson trichrome + for collagen

Note: tumor is RETROPERITONEAL

[Fibrosarcoma TGLS = 4-3,15,16]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=SARCOMA in retroperitoneum

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 321

TRT#: 9

SEX: Male

DAY ON TEST: 577

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S321

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	Coagulating Gland	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Skin
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
		Mineralization	Moderate
* Intestine Large, Rectum		Fibrosarcoma	Metastatic (Testes)
[Fibrosarcoma TGLS = 7-7]			
* Kidney		Hydronephrosis	Moderate
		Mineralization	Mild
	Papilla	Necrosis	Marked
		Nephropathy	Marked
[Hydronephrosis TGLS = 1-3]			
[Nephropathy TGLS = 2-3]			
* Liver		Basophilic Focus	
		Degeneration	Fatty, Minimal
Note: fixation artifacts			
* Lung		Fibrosarcoma	Metastatic (Testes)
		Fibrosis	Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Moderate
		Mineralization	Mild
	Alveolus	Proteinosis	Marked
Note: interstitial thickening=Mets from tumor of test. tunics			
Note: masson + collagen in infl.foci,& peribronchial			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 321	TRT#: 9	SEX: Male	DAY ON TEST: 577
	DOSE: 1.0 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/S321

ORGAN AND ACCOUNTABLE SITE STATUS

[Proteinosis TGLS = 9-5,6]			
Lymph Node	Iliac	Fibrosarcoma	Metastatic (Testes)
[Fibrosarcoma TGLS = 8-16]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 10-14]			
* Preputial Gland		Inflammation	Moderate
* Seminal Vesicle	Epithelium	Hyperplasia	Moderate
Note: Epi.hyperp. has smooth muscle prolif.°en.			
Note: Epi.hyper. not bilateral, not TGL			
* Spleen		Pigmentation	Hemosiderin, Mild
* Stomach, Forestomach		Ulcer	Moderate
* Testes	Tunic	Fibrosarcoma	
	Interstit Cell	Hyperplasia	Minimal
Note: massons + for collagen			
[Fibrosarcoma TGLS = 3-17]			
* Urinary Bladder		Calculus Micro Observation Only	
[Calculus Micro Observation Only TGLS = 6-8]			

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Renal failure secondary Test. tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 323

TRT#: 9

SEX: Male

DAY ON TEST: 621

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S323

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	Coagulating Gland	* Epididymis	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

MISSING

* Thymus

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Minimal
* Bone	Mandible	Pheochromocytoma Benign Necrosis	Marked
Note: necrosis=hyperplasia & lysis 2ndary to tumor invas. [Necrosis TGLS = 7-18,19]			
* Brain	Cerebrum	Compression	
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Moderate
* Liver	Renal Tubule	Pigmentation	Mild
		Degeneration	Fatty, Mild
		Hepatodiaphragmatic Nodule	
Note: fixation artifacts on surface [Hepatodiaphragmatic Nodule TGLS = 2-15]			
* Lung	Alveolus	Fibrosis	Mild
	Interstitialium	Hyperplasia	Macrophage, Marked
		Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
[Hyperplasia TGLS = 4-5,6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 323

TRT#: 9

SEX: Male

DAY ON TEST: 621

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S323

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 5-5,6]			
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
[Hyperplasia TGLS = 1-10]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-14]			
* Spleen		Pigmentation	Hemosiderin, Mild
* Testes	Germinal Epith	Degeneration	Mild
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 3-2]			
Tooth	Gingiva	Squamous Cell Carcinoma	
Note: invasion around tooth & into mandible			
Note: radiographs of lesion			
[Squamous Cell Carcinoma TGLS = 7-18,19]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary tumor, pneumonia contributed

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 324

TRT#: 11

SEX: Male

DAY ON TEST: 199

DOSE: 1.0 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-S324

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Mild
	[Hyperplasia TGLS = 5-3,4]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 4-2,3-2]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Minimal
	[Hyperplasia TGLS = 4-2,3-2]		
* Nose		Inflammation	Chronic Active, Minimal
Preputial Gland		Ectasia	Mild
	[Ectasia TGLS = 1-7]		
Urinary Bladder		Calculus Micro Observation Only	
	[Calculus Micro Observation Only TGLS = 2-8]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 325

TRT#: 9

SEX: Male

DAY ON TEST: 642

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S325

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Leukemia Mononuclear Pheochromocytoma Benign	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Moderate
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-4]			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Marked
[Hyperplasia TGLS = 6-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 5-6]			
* Lymph Node, Mandibular		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 325

TRT#: 9

SEX: Male

DAY ON TEST: 642

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S325

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 3-10]

* Skin

Basal Cell Adenoma

[Basal Cell Adenoma TGLS = 1-15]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-3,16]

PRIMARY CAUSE OF DEATH -

Animal Note: numerous tissues have fixation artifacts

Animal Note: CO/MSAC=Mononuclear cell leukemia & basal cell tumor/Skin

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 327

TRT#: 9

SEX: Male

DAY ON TEST: 663

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S327

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| Coagulating Gland | * Epididymis | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-------------------|-------------------------------|-------------------------|----------------------|
| * Adrenal Medulla | | Leukemia Mononuclear | |
| | Bilateral | Pheochromocytoma Benign | |
| * Heart | | Cardiomyopathy | Minimal |
| | | Leukemia Mononuclear | |
| * Kidney | | Nephropathy | Marked |
| | Renal Tubule | Pigmentation | Minimal |
| | [Nephropathy TGLS = 4-3] | | |
| * Liver | Centrilobular | Atrophy | Mild |
| | | Basophilic Focus | |
| | | Degeneration | Cystic, Mild |
| | Bile Duct | Hyperplasia | Mild |
| | | Leukemia Mononuclear | |
| * Lung | | Fibrosis | Mild |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Interstitialium | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Mild |
| | | Leukemia Mononuclear | |
| | Alveolus | Proteinosis | Moderate |
| | [Inflammation TGLS = 8-5,6] | | |
| | [Proteinosis TGLS = 7-5,6] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 327

TRT#: 9

SEX: Male

DAY ON TEST: 663

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S327

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Mild

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-3]

* Stomach, Forestomach

Hyperplasia

Squamous, Moderate

Ulcer

Marked

[Ulcer TGLS = 3-15,7]

* Testes

Interstit Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artifacts on tissues

Animal Note: ulcer has perforated

Animal Note: CO/MSAC=perforated gastic ulcer

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 328

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S328

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
		Pheochromocytoma Malignant	
	[Pheochromocytoma Malignant TGLS = 6-16]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
* Lung		Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Moderate

Note: leukemia compromised lesion grading

[Leukemia Mononuclear TGLS = 7-5,6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 328

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S328

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial [Leukemia Mononuclear TGLS = 8-2]		Leukemia Mononuclear	
* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 8-2]		Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 8-2]		Leukemia Mononuclear	
* Mammary Gland Note: TGL "mammary gland" = no histo evidence of gland see SKIN			
* Pituitary Gland Pars Distalis Pars Distalis		Cyst Hyperplasia	Minimal
* Skin Note: TGL "mammary gland" = no histo evidence of gland [Cyst Epithelial Inclusion TGLS = 1-18] [Fibroma TGLS = 2-15]		Cyst Epithelial Inclusion Fibroma	
* Spleen [Leukemia Mononuclear TGLS = 9-17,5-3,17]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 3,4-20]	Bilateral, Interstit Cell	Adenoma	
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: Ca DX based on anaplasia, capsular invasion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 329

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S329

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
[Pheochromocytoma Benign TGLS = 2-14]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
[Nephropathy TGLS = 3-3]			
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
Note: TGL"nodule"=inflammation			
[Inflammation TGLS = 6-15,7-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 329	TRT#: 9	SEX: Male	DAY ON TEST: 733
	DOSE: 1.0 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/S329

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 1-3]		Hyperplasia Leukemia Mononuclear	Lymphoid, Marked
* Testes [Adenoma TGLS = 5-17] [Degeneration TGLS = 4-17]	Interstit Cell Germinal Epith	Adenoma Degeneration	Moderate
* Thyroid Gland [Adenoma TGLS = 8-2]	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 330

TRT#: 9

SEX: Male

DAY ON TEST: 716

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S330

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Bone		Hyperostosis	
Note: femur			
* Heart		Cardiomyopathy	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-19]			
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 6-3]			
* Liver	Centrilobular	Atrophy	Mild
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-4,17]			
* Lung	Alveolus	Fibrosis	Moderate
		Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Marked
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 10-5,6,18]			
* Lymph Node, Bronchial		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 330

TRT#: 9

SEX: Male

DAY ON TEST: 716

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S330

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 9-6,7-2]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-6,7-2]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-6,7-2]			
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[Fibrosis TGLS = 2-16]			
[Leukemia Mononuclear TGLS = 1-3,15,16]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3,4-20]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear Cell leukemia

Animal Note: fixation artifacts on tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:13
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 331	TRT#: 11	SEX: Male	DAY ON TEST: 199
	DOSE: 1.0 LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-S331

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney * Nose

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
	[Hyperplasia TGLS = 3-3,4]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
	[Hyperplasia TGLS = 2-2]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 2-2]		
Urinary Bladder		Calculus Micro Observation Only	
	[Calculus Micro Observation Only TGLS = 1-7]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 332

TRT#: 9

SEX: Male

DAY ON TEST: 458

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S332

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	[Hepatodiaphragmatic Nodule TGLS = 1-16]		
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
	[Proteinosis TGLS = 2-5]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Testes	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 333

TRT#: 9

SEX: Male

DAY ON TEST: 707

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S333

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign Pheochromocytoma Malignant	
[Pheochromocytoma Benign TGLS = 4-14]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus Eosinophilic Focus Necrosis	
Note: massive liver necrosis of lobules	Hepatocyte		Mild
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Marked
	Bronchus	Hyperplasia	Lymphoid, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Marked
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 6-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
* Nose	Olfactory Epi	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 7-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 333

TRT#: 9

SEX: Male

DAY ON TEST: 707

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S333

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	Subcut Tiss	Lipoma	
Note: [LIPOMA] TGLs = 3-15			
* Testes	Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Mild
[Adenoma TGLS = 9-17]			
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 8-2]			
Tissue NOS			
Note: TNOS TGL is lipoma of subcutis, see SKIN			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=ADRENAL tumors & pneumonia

Animal Note: fixation artifacts on tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 334

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S334

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 6-14]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
		Leukemia Mononuclear	
* Intestine Large, Cecum		Inflammation	Minimal
* Kidney		Cyst	
		Leukemia Mononuclear	
		Nephropathy	Marked
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 334

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S334

ORGAN AND ACCOUNTABLE SITE STATUS

Alveolus	Proteinosis	Marked
[Inflammation TGLS = 11-5,6]		
[Leukemia Mononuclear TGLS = 10-5,6]		
* Lymph Node, Bronchial	Leukemia Mononuclear	
* Lymph Node, Mediastinal	Leukemia Mononuclear	
* Pancreas	Atrophy	Moderate
* Pituitary Gland	Hyperplasia	Minimal
	Leukemia Mononuclear	
* Seminal Vesicle	Leukemia Mononuclear	
* Spleen	Fibrosis	Moderate
	Leukemia Mononuclear	
[Fibrosis TGLS = 4-15]		
[Leukemia Mononuclear TGLS = 3-3,15]		
* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 1,2-18]		
* Thymus	Leukemia Mononuclear	
* Urinary Bladder	Inflammation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 335

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S335

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Mammary Gland
--------------------------	-----------------

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Blood Vessel		Inflammation	Moderate
Note: in mesentery			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
		Degeneration	Cystic, Moderate
	Bile Duct	Hyperplasia	Minimal
[Degeneration TGLS = 3-15]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 5-5,6]			
[Proteinosis TGLS = 4-5,6]			
Lymph Node	Pancreatic	Hyperplasia	Lymphoid, Mild
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Mild
		Hyperplasia	Lymphoid, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 335

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S335

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose	Nasolacrim Dct	Inflammation	Mild
		Inflammation	Chronic Active, Minimal
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-3]		
* Testes	Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-17]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 336

TRT#: 9

DOSE: 1.0 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 737

HISTO: RZ116/S336

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mesenteric	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea		

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
	Atrium	Thrombosis	
	[Thrombosis TGLS = 8-19]		
* Intestine Small, Duodenum		Ulcer	Moderate
	[Ulcer TGLS = 11-18]		
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Granulomatous, Focal, Mild
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 5-17]		
* Lung		Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 336

TRT#: 9

DOSE: 1.0 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 737

HISTO: RZ116/S336

ORGAN AND ACCOUNTABLE SITE STATUS

	Alveolus	Proteinosis	Marked
Note: leukemia clouds lesion grading [Leukemia Mononuclear TGLS = 10-5,6]			
* Lymph Node, Bronchial [Leukemia Mononuclear TGLS = 9-6,7-2,15]		Leukemia Mononuclear	
* Lymph Node, Mandibular [Leukemia Mononuclear TGLS = 9-6,7-2,15]		Leukemia Mononuclear	
* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 9-6,7-2,15]		Leukemia Mononuclear	
Mesentery		Inflammation	Mild
* Nose	Olfactory Epi	Atrophy	Minimal
	Nasolacrim Dct	Inflammation	Mild
		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
		Thrombosis	Minimal
Note: inflam. assoc w/ foreign body			
* Pancreas		Atrophy	Moderate
* Seminal Vesicle		Leukemia Mononuclear	
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[Fibrosis TGLS = 4-16]			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Germinal Epith	Degeneration	Mild
[Adenoma TGLS = 1-20]			
[Degeneration TGLS = 2-20]			
* Thymus		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-2]			
* Thyroid Gland	C Cell	Adenoma	
* Urinary Bladder		Inflammation	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 337

TRT#: 9

SEX: Male

DAY ON TEST: 595

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S337

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	Coagulating Gland	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyms	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
[Pheochromocytoma Benign TGLS = 2-14]			
* Bone Marrow		Atrophy	Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 6-1]			
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 4-5,6]			
[Proteinosis TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 337

TRT#: 9

SEX: Male

DAY ON TEST: 595

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S337

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary tumor

Animal Note: fixation artifacts on tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 338

TRT#: 9

SEX: Male

DAY ON TEST: 564

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S338

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	Coagulating Gland	* Epididymis
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Testes	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 9-1,15]			
* Heart		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-18]			
* Kidney		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-3]		Nephropathy	Moderate
* Liver	Centrilobular	Atrophy	Mild
[Leukemia Mononuclear TGLS = 5-4]		Degeneration	Fatty, Mild
		Leukemia Mononuclear	
* Lung	Alveolus	Fibrosis	Minimal
[Inflammation TGLS = 8-5,6]		Hyperplasia	Macrophage, Moderate
[Proteinosis TGLS = 7-5,6]		Inflammation	Chronic Active, Moderate
	Alveolus	Leukemia Mononuclear	
		Proteinosis	Marked
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 338

TRT#: 9

SEX: Male

DAY ON TEST: 564

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S338

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Olfactory Epi	Atrophy Inflammation Leukemia Mononuclear	Minimal Chronic Active, Moderate
* Skin [Inflammation TGLS = 10-17]	Subcut Tiss	Thrombosis Inflammation	Minimal Moderate
* Spleen [Leukemia Mononuclear TGLS = 2-3,16,3-16]		Leukemia Mononuclear	
* Stomach, Forestomach		Hyperplasia Ulcer	Squamous, Mild Marked
* Stomach, Glandular [Necrosis TGLS = 11-20]		Necrosis	Focal, Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artifacts on tissues

Animal Note: CO/MSAC=Mononuclear cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 339

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S339

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Medulla	Bilateral	Leukemia Mononuclear Pheochromocytoma Benign	
* Brain		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Marked
* Kidney		Nephropathy	Moderate
* Liver	Renal Tubule Centrilobular	Pigmentation	Mild
		Atrophy	Minimal
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 5-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 339

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S339

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal

* Lymph Node, Mesenteric

* Nose

Olfactory Epi

* Spleen

[Leukemia Mononuclear TGLS = 3-15,4-3,15]

* Testes

Bilateral, Interstit Cell

[Adenoma TGLS = 1,2-17]

Hyperplasia

Hyperplasia

Leukemia Mononuclear

Inflammation

Mineralization

Leukemia Mononuclear

Adenoma

Lymphoid, Marked

Lymphoid, Mild

Chronic Active, Minimal

Focal, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 340

TRT#: 9

SEX: Male

DAY ON TEST: 560

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S340

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Cecum		Inflammation	Marked
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Marked
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
	[Proteinosis TGLS = 5-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
	[Hyperplasia TGLS = 4-6,4-6]		
	[Hyperplasia TGLS = 4-6,4-6]		
* Nose	Olfactory Epi	Atrophy	Minimal
		Inflammation	Chronic Active, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 340

TRT#: 9

SEX: Male

DAY ON TEST: 560

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S340

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland

Inflammation

Mild

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 6-3]

* Testes

Interstit Cell

Adenoma

Germinal Epith

Degeneration

Moderate

[Adenoma TGLS = 1-16]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear Cell Leukemia

Animal Note: acute cecitis w/ ulceration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 341

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S341

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	Coagulating Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Epididymis		Inflammation	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Minimal
	Bile Duct	Hyperplasia	Minimal
Note: TGL "pale" = not sign lesion			
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Fibrosis TGLS = 8-5,6]			
[Proteinosis TGLS = 7-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Nose		Inflammation	Chronic Active, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 341

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S341

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin [Hyperkeratosis TGLS = 1-15]	Tail	Hyperkeratosis	Moderate
* Spleen Note: TGL"RED"=cogestion=not signif. lesion			
* Testes [Adenoma TGLS = 2-17,3,4-17]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: tail leaion doesn't look that bad

Animal Note: CO/MSAC=TAIL Lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 342

TRT#: 9

SEX: Male

DAY ON TEST: 726

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S342

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Epididymis	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Brain	Cerebrum	Atrophy	Focal, Marked
	[Atrophy TGLS = 6-1]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
* Lung		Leukemia Mononuclear	
		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked

Note: Alv Bron Carc has Squamous Differentiation.

Note: papillary pattern

[Alveolar/Bronchiolar Carcinoma TGLS = 4-15]

[Proteinosis TGLS = 5-5,6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 342

TRT#: 9

SEX: Male

DAY ON TEST: 726

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S342

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Pancreas		Atrophy	Mild
* Parathyroid Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 7-14]			
* Spleen		Fibrosis	Moderate
[Fibrosis TGLS = 1-16]		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3,16]			
* Testes	Germinal Epith	Degeneration	Moderate
[Degeneration TGLS = 3-18]		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Multiple;GCL,pneumonia,Pit adenoma,Ad. adenomas

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 343

TRT#: 9

SEX: Male

DAY ON TEST: 458

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S343

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Urinary Bladder	

MISSING

* Trachea

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 1-5]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Hyperplasia	Macrophage, Minimal
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 345

TRT#: 11

SEX: Male

DAY ON TEST: 199

DOSE: 1.0 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-S345

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Marked
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Hyperplasia TGLS = 4-3,4]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 3-2,2-2]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 3-2,2-2]			
* Nose	Olfactory Epi	Atrophy	Minimal
	Respirat Epith	Hyperplasia	
		Inflammation	Chronic Active, Minimal
Urinary Bladder		Calculus Micro Observation Only	
[Calculus Micro Observation Only TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 346

TRT#: 9

SEX: Male

DAY ON TEST: 736

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S346

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	Coagulating Gland
* Epididymis	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Malignant	
	[Pheochromocytoma Malignant TGLS = 1-14]		
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Degeneration	Fatty, Minimal
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
	[Inflammation TGLS = 3-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Minimal
	[Hyperplasia TGLS = 2-6,2-6]		
	[Hyperplasia TGLS = 2-6,2-6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 346

TRT#: 9

DOSE: 1.0 MG/M3

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: RZ116/S346

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Chronic Active, Moderate
Note: unilateral inflammation			
* Pituitary Gland	Pars Distalis	Adenoma	
* Testes	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 347

TRT#: 9

SEX: Male

DAY ON TEST: 408

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S347

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Bone | * Brain | * Epididymis |
| * Esophagus | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Mammary Gland | * Nose | * Pituitary Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

MISSING

- * Parathyroid Gland

INSUFFICIENT TISSUE

- * Larynx

OBSERVATIONS

- | | | | |
|---------------------------|--|---------------------------|------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Moderate |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Kidney | | Nephropathy | Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 10-4] | | |
| * Lung | Alveolus | Hyperplasia | Macrophage, Mild |
| | | Leukemia Mononuclear | |
| | | Metaplasia | Osseous, Minimal |
| | Alveolus | Proteinosis | Mild |
| | [Hyperplasia TGLS = 9-5,6] | | |
| Lymph Node | Pancreatic | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 2-8,7-2,8-6,4-16] | | |
| * Lymph Node, Bronchial | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 2-8,7-2,8-6,4-16] | | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 2-8,7-2,8-6,4-16] | | |
| * Lymph Node, Mediastinal | | Leukemia Mononuclear | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 347

TRT#: 9

SEX: Male

DAY ON TEST: 408

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S347

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 2-8,7-2,8-6,4-16]		
* Lymph Node, Mesenteric	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8,7-2,8-6,4-16]		
* Pancreas	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-7]		
* Spleen	Hemorrhage	Moderate
	Leukemia Mononuclear	
Note: hemorrhage assoc w/ small rupture of capsule		
[Hemorrhage TGLS = 6-15]		
[Leukemia Mononuclear TGLS = 5-3,15]		
* Stomach, Forestomach	Ulcer	Moderate
[Ulcer TGLS = 11-7]		
* Testes	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-9,18]		
* Thymus	Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 348

TRT#: 9

SEX: Male

DAY ON TEST: 584

DOSE: 1.0 MG/M3

DISP: Natural Death

HISTO: RZ116/S348

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|---------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| Coagulating Gland | * Epididymis | * Esophagus | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic | * Larynx |
| * Liver | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Pancreas |
| * Parathyroid Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Testes | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

MISSING

- * Intestine Large, Cecum

AUTO PRECLUDES DIAG.

- | | |
|--------------------------|----------------------------|
| * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

- | | | | |
|--------------------------|------------------------------|-----------------------|-------------------------|
| * Adrenal Medulla | | Hyperplasia | Moderate |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Marked |
| * Lung | | Fibrosis | Minimal |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Bronchus | Hyperplasia | Lymphoid, Minimal |
| | Interstitium | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | Alveolus | Proteinosis | Marked |
| | [Proteinosis TGLS = 4-5,6] | | |
| * Lymph Node, Bronchial | | Hyperplasia | Lymphoid, Mild |
| * Lymph Node, Mesenteric | | Hyperplasia | Lymphoid, Minimal |
| * Mammary Gland | | Hyperplasia | Cystic, Mild |
| | [Hyperplasia TGLS = 2-10] | | |
| * Nose | Olfactory Epi | Mineralization | Focal, Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |

Note: brain invasion=malignancy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 348

TRT#: 9

SEX: Male

DAY ON TEST: 584

DOSE: 1.0 MG/M3

DISP: Natural Death

HISTO: RZ116/S348

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 3-14]

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Pituitary Ca

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 349

TRT#: 9

SEX: Male

DAY ON TEST: 703

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ11/S349

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
Coagulating Gland	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 1-14]		
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
	[Fibrosis TGLS = 3-5,6]		
	[Proteinosis TGLS = 2-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Nose	Olfactory Epi	Atrophy	Minimal
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:13

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 349

TRT#: 9

SEX: Male

DAY ON TEST: 703

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ11/S349

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Ulcer

Moderate

Adenoma

[Adenoma TGLS = 4-16]

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artifacts on many tissues

Animal Note: Pneumonia not markedly worse than others in group

Animal Note: CO/MSAC=Pneumonia[?]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 350

TRT#: 9

SEX: Male

DAY ON TEST: 564

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S350

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	Coagulating Gland
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Rectum	* Thymus
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OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 7-1]			
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Mild
* Liver		Basophilic Focus	
		Degeneration	Fatty, Minimal
		Pigmentation	Hemosiderin, Minimal
Note: how these minimal lesion = pale liver = ??			
[Pigmentation TGLS = 1-4]			
* Lung	Alveolus	Fibrosis	Minimal
	Interstitialium	Hyperplasia	Macrophage, Moderate
		Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Fibrosis TGLS = 5-5,6]			
[Proteinosis TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 2-8,2-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 350

TRT#: 9

SEX: Male

DAY ON TEST: 564

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S350

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 2-8,2-8]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 2-8]			
* Lymph Node, Mesenteric		Hyperplasia	Macrophage, Mild
[Hyperplasia TGLS = 2-8]			
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-14]			
* Spleen		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 3-2]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pit. Adenoma + pneumonia

Animal Note: many tissues w/ fixation artifacts

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 71

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q071

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
--------------------------	---------------------------

INSUFFICIENT TISSUE

* Thymus

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
Note: fixation artifacts			
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
* Lung	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Spleen		Pigmentation	Hemosiderin, Moderate
Tissue NOS			
Note: TNOS=Mammary gland NB			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 72

TRT#: 2

SEX: Female

DAY ON TEST: 640

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q072

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone Marrow		Inflammation	Granulomatous, Focal, Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
Note: focal fixation artifacts			
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitialium	Infiltration Cellular	Minimal
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 2-17]			
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
[Fibroadenoma TGLS = 1-15,16]			
* Nose		Inflammation	Chronic Active, Moderate
Note: assoc w/ foreign body			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Hyperplasia	Mild
[Angiectasis TGLS = 3-14]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Fibroadenoma of mammary gland

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 73

TRT#: 2

SEX: Female

DAY ON TEST: 717

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q073

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Minimal
		Leukemia Mononuclear	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Marked
	[Nephropathy TGLS = 2-3]		
* Liver		Basophilic Focus	
		Degeneration	Fatty, Mild
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
	[Hepatodiaphragmatic Nodule TGLS = 3-15]		
	[Leukemia Mononuclear TGLS = 4-4,15]		
* Lung		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	
	[Adenoma TGLS = 5-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 73

TRT#: 2

SEX: Female

DAY ON TEST: 717

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q073

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-3]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 74

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q074

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Clitoral Gland		Carcinoma	
[Carcinoma TGLS = 1-9]			
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Granulomatous, Minimal
[Hepatodiaphragmatic Nodule TGLS = 2-15]			
* Lung		Hemorrhage	Acute, Minimal
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Macrophage, Minimal
* Nose		Inflammation	Chronic Active, Mild
* Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 75

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q075

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Inflammation	Granulomatous, Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
* Nose		Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 76

TRT#: 2

SEX: Female

DAY ON TEST: 678

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q076

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
* Heart	Atrium	Thrombosis	
* Kidney	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
* Larynx		Hyperplasia	Squamous, Moderate
		Inflammation	Mild
* Liver	Centrilobular	Atrophy	Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2,3-4]		
* Lung		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-5,6]		
* Lymph Node, Mesenteric		Hyperplasia	Macrophage, Moderate
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Cyst	
	[Cyst TGLS = 7-14]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-3,15]		
* Thymus		Degeneration	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 76

TRT#: 2

SEX: Female

DAY ON TEST: 678

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q076

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: no recuts for missing med.LN , not sign lesion

Animal Note: CO/MSAC=leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 77

TRT#: 2

SEX: Female

DAY ON TEST: 513

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q077

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx |
| * Lung | * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Nose | * Ovary | * Pancreas |
| * Parathyroid Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|------------------------------|---------------|------------------|----------|
| * Kidney | | Nephropathy | Minimal |
| * Liver | | Basophilic Focus | |
| * Mammary Gland | | Fibroadenoma | |
| [Fibroadenoma TGLS = 1-15] | | | |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Moderate |
| [Cyst TGLS = 3-14] | | | |

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artifacts in some tissues

Animal Note: \CO/MSAC=mammary fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 78

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q078

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex

* Adrenal Medulla

* Bone

* Bone Marrow

* Brain

* Clitoral Gland

* Esophagus

* Heart

* Intestine Large, Cecum

* Intestine Large, Colon

* Intestine Large, Rectum

* Intestine Small, Duodenum

* Intestine Small, Ileum

* Intestine Small, Jejunum

* Islets, Pancreatic

* Kidney

* Larynx

* Lymph Node, Bronchial

* Lymph Node, Mandibular

* Lymph Node, Mediastinal

* Lymph Node, Mesenteric

* Mammary Gland

* Nose

* Ovary

* Pancreas

* Parathyroid Gland

* Pituitary Gland

* Salivary Glands

* Skin

* Spleen

* Stomach, Forestomach

* Stomach, Glandular

* Thymus

* Thyroid Gland

* Trachea

* Urinary Bladder

OBSERVATIONS

* Liver

Basophilic Focus

* Lung

Hemorrhage

Acute, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 80

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q080

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
Eye		Cataract	Marked
	Retina	Degeneration	Marked
[Cataract TGLS = 1-19]			
* Heart		Cardiomyopathy	Minimal
Note: marked fixation artifacts w/ mineralization			
* Intestine Large, Cecum		Inflammation	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Mixed Cell Focus	
[Leukemia Mononuclear TGLS = 6-4]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Leukemia Mononuclear	
[Alveolar/Bronchiolar Adenoma TGLS = 8-17]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mediastinal		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 80	TRT#: 2 DOSE: 0.0MG/M3	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: RZ116/Q080
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ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland [Fibroadenoma TGLS = 2-15,3-18]		Fibroadenoma	
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Spleen [Fibrosis TGLS = 4-16] [Leukemia Mononuclear TGLS = 5-3]		Fibrosis Leukemia Mononuclear	Moderate
* Thymus		Degeneration	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 81

TRT#: 2

SEX: Female

DAY ON TEST: 369

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q081

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Islets, Pancreatic
* Kidney	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland	* Thymus	* Thyroid Gland
---------------------	----------	-----------------

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

OBSERVATIONS

* Bone Marrow	Leukemia Mononuclear	
* Larynx	Inflammation	Minimal
* Liver	Basophilic Focus	
	Degeneration	Fatty, Mild
	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-4,16]		
* Lung	Leukemia Mononuclear	
Lymph Node	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-17,7-2,5-8]		
* Lymph Node, Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-17,7-2,5-8]		
* Lymph Node, Mesenteric	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-17,7-2,5-8]		
* Spleen	Hemorrhage	Marked
	Leukemia Mononuclear	

Note: rupture w/ hemorrhage = TGL 2

[Hemorrhage TGLS = 2-15]

[Leukemia Mononuclear TGLS = 3-3]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 81

TRT#: 2

SEX: Female

DAY ON TEST: 369

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q081

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Splenic rupture secondary to mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 82

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q082

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Carcinoma	
[Carcinoma TGLS = 2-16]			
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Degeneration	Fatty, Mild
Note: degeneration on slide 17			
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitium	Infiltration Cellular	Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Ovary		Granulosa Cell Tumor Benign	
Note: like gonadal stromal t.[Path F344,Boorman] but cystic			
[Granulosa Cell Tumor Benign TGLS = 3-9]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[Adenoma TGLS = 6-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 82

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q082

ORGAN AND ACCOUNTABLE SITE STATUS

Tissue NOS

Note: TNOS=Mammary gland nb

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 83

TRT#: 2

SEX: Female

DAY ON TEST: 500

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q83

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Kidney	Renal Tubule	Nephropathy Pigmentation Inflammation	Minimal Minimal Granulomatous, Focal, Minimal
* Liver			
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Cystic, Minimal
* Uterus		Polyp Stromal	

Note: Rgt. horn polyp is hamorrhagic, infarcted?

Note: looks like 2 polyps

[Polyp Stromal TGLS = 1-15,2-16]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Uterine polyp

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 84

TRT#: 2

SEX: Female

DAY ON TEST: 664

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q084

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
Note: fixation artifacts			
* Liver	Centrilobular	Atrophy	Minimal
	Bile Duct	Degeneration	Fatty, Mild
		Hyperplasia	Minimal
		Leukemia Mononuclear	
Note: fixation artifacts			
[Leukemia Mononuclear TGLS = 3-4]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Bronchial		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Ovary		Cyst	
[Cyst TGLS = 1-9]			
* Pancreas		Atrophy	Minimal
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3,15]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 85

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q085

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

INSUFFICIENT TISSUE

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Clitoral Gland		Hyperplasia	Cystic, Moderate
[Hyperplasia TGLS = 2-9]			
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Degeneration	Fatty, Minimal
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Carcinoma	
[Carcinoma TGLS = 1-15]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[Adenoma TGLS = 3-14]			
Tissue NOS			
Note: TNOS=Mammary gland tissue, nb			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 86

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q086

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Thymus

INSUFFICIENT TISSUE

* Lymph Node, Mesenteric

OBSERVATIONS

Blood Vessel			
Note: tissue identified as BV=normal fat			
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Granulomatous, Focal, Mild
[Hepatodiaphragmatic Nodule TGLS = 1-15]			
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Angiectasis TGLS = 3-14]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 87

TRT#: 2

SEX: Female

DAY ON TEST: 640

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q087

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Bronchial

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Granulomatous, Focal, Minimal
Note: fixation artifacts			
[Hepatodiaphragmatic Nodule TGLS = 2-15]			
* Lung	Interstitium	Infiltration Cellular	Minimal
Note: TGL "mottled" = congestion = not signif. lesion			
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Minimal
[Fibroadenoma TGLS = 1-16]			
* Nose	Nasolacrim Dct	Inflammation	Mild
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 87

TRT#: 2

SEX: Female

DAY ON TEST: 640

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q087

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Mammary fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 88

TRT#: 4

SEX: Female

DAY ON TEST: 200

DOSE: 0.0MG/M3LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-Q088

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lymph Node, Bronchial

* Lymph Node, Mediastinal

* Nose

OBSERVATIONS

* Lung

Interstitial

Infiltration Cellular

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 89

TRT#: 2

SEX: Female

DAY ON TEST: 563

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q089

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone		Hyperostosis	
Note: femur			
* Bone Marrow		Fibrosis	Marked
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Granulomatous, Focal, Mild
		Leukemia Mononuclear	
		Pigmentation	Hemosiderin, Moderate
[Basophilic Focus TGLS = 2-4]			
[Eosinophilic Focus TGLS = 1-15]			
[Leukemia Mononuclear TGLS = 3-4]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-5,6]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-2]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-2]			
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 89	TRT#: 2 DOSE: 0.0MG/M3	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: 563 HISTO: RZ116/Q089
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ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 4-2]		Leukemia Mononuclear	
* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 4-2]		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Thrombosis	Minimal
* Pancreas		Atrophy	Marked
* Spleen Note: minimal spleen involvement		Leukemia Mononuclear	
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
* Uterus Note: w/ stromal hyperplasia	Endometrium	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear Cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 90

TRT#: 2

SEX: Female

DAY ON TEST: 665

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q090

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Nose	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Bone Marrow		Leukemia Mononuclear	
* Clitoral Gland		Hyperplasia	Cystic, Mild
[Hyperplasia TGLS = 2-9]			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Degeneration	Fatty, Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-4]			
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 9-18]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-19,5-16,8-2,6-8]			
[Leukemia Mononuclear TGLS = 3-19,5-16,8-2,6-8]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-19,5-16,8-2,6-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 90

TRT#: 2

SEX: Female

DAY ON TEST: 665

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q090

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 3-19,5-16,8-2,6-8]

* Mammary Gland

Fibroadenoma

[Fibroadenoma TGLS = 1-20]

Mesentery

Fat

Necrosis

Moderate

Note: infarction w/ hemorrhage & inflammation

[Necrosis TGLS = 7-17]

* Pancreas

Leukemia Mononuclear

* Spleen

Leukemia Mononuclear

Pigmentation

Hemosiderin, Moderate

Note: Mononuclear cell leuk. morphology not typical

Note: MCL DX based on spleen, LN & blood [see Lung] involvement

* Thyroid Gland

C Cell

Adenoma

Tissue NOS

Note: TGL"TNOS"=MAMMARY GLAND, which see

* Uterus

Cyst

PRIMARY CAUSE OF DEATH

-

Animal Note: Granular cell tumor must have contributed

Animal Note: CO/MSAC=Mammary fibroadenoma

Animal Note: fixation artifacts on sometissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 92

TRT#: 2

SEX: Female

DAY ON TEST: 263

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q092

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Islets, Pancreatic	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Clitoral Gland	* Parathyroid Gland	* Thyroid Gland
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

INSUFFICIENT TISSUE

* Pituitary Gland

OBSERVATIONS

* Heart	Cardiomyopathy	Minimal
* Kidney	Nephroblastoma	
Note: rosettes columnar or transitional epithelium		
Note: DX=basophiic polygonal cell nests around epith. rosettes		
[Nephroblastoma TGLS = 2-3,15,16]		
* Spleen	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]		

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=massive renal tumor

Animal Note: med LN congested - not significant lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 93

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q093

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

INSUFFICIENT TISSUE

* Lymph Node, Bronchial	* Lymph Node, Mediastinal
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OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitium	Infiltration Cellular	Minimal
		Metaplasia	Osseous, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[Adenoma TGLS = 1-14]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 94

TRT#: 2

SEX: Female

DAY ON TEST: 613

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q094

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

INSUFFICIENT TISSUE

* Larynx

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
* Bone Marrow		Fibrosis	Mild
		Inflammation	Granulomatous, Focal, Moderate
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Moderate
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	Hepatocyte	Necrosis	Mild
		Pigmentation	Hemosiderin, Moderate
Note: fixation artifacts			
Note: necrosis=focal, massive liver necrosis			
[Leukemia Mononuclear TGLS = 2-4]			
[Necrosis TGLS = 3-4]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 94

TRT#: 2

SEX: Female

DAY ON TEST: 613

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q094

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 4-14]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-3]

* Stomach, Forestomach

Ulcer

Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 95

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q095

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Mammary Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 96

TRT#: 2

SEX: Female

DAY ON TEST: 574

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q096

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

INSUFFICIENT TISSUE

* Lymph Node, Mandibular

OBSERVATIONS

* Brain [Compression TGLS = 4-1]	Cerebrum	Compression	
* Kidney	Renal Tubule	Nephropathy Pigmentation Basophilic Focus Degeneration	Mild Moderate
* Liver	Biliar Tract	Hyperplasia Inflammation	Cystic, Minimal Minimal
* Lung [Infiltration Cellular TGLS = 2-5,6]	Interstitialium	Infiltration Cellular	Granulomatous, Focal, Minimal Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Mammary Gland [Fibroadenoma TGLS = 1-15]		Fibroadenoma	
* Pituitary Gland [Adenoma TGLS = 3-14]	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
* Thyroid Gland Tissue NOS Note: "TGL-TNOS"=Mammary Gland, which see	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 96

TRT#: 2

SEX: Female

DAY ON TEST: 574

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q096

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary adenoma & fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 97

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q097

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
[Hyperplasia TGLS = 1-15]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 98

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q098

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hyperplasia	Moderate
		Inflammation	Granulomatous, Focal, Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-4,15]			
* Lung	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-5,6]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
* Spleen		Leukemia Mononuclear	
Tooth	Peridont Tiss	Inflammation	Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 98

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q098

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-16]

PRIMARY CAUSE OF DEATH -

Animal Note: prolif./inflam. lesions around teeth=from foreign bodies

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 99

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q099

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Hyperplasia	Marked
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 100

TRT#: 2

SEX: Female

DAY ON TEST: 665

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q100

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

INSUFFICIENT TISSUE

* Intestine Large, Rectum	* Lymph Node, Mandibular
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OBSERVATIONS

* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Granulomatous, Focal, Minimal
Note: fixation artifacts			
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitium	Infiltration Cellular	Minimal
* Mammary Gland		Adenoma	
[Adenoma TGLS = 2-16]			
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Note: fixation artifacts on tissue			
* Skin	Pinna	Fibrosarcoma	
[Fibrosarcoma TGLS = 1-15]			
Tissue NOS			
Note: "TGL-TNOS"=Mammary Gland, which see			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 100

TRT#: 2

SEX: Female

DAY ON TEST: 665

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q100

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Fibrosarcoma, pinna of ear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 101

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q101

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Adenoma	
	Interstitialium	Infiltration Cellular	Minimal
[Adenoma TGLS = 3-16]			
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Adenoma TGLS = 4-14]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tissue NOS			
Note: TNOS=Mammary Gland			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 102

TRT#: 2

SEX: Female

DAY ON TEST: 640

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q102

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Parathyroid Gland

INSUFFICIENT TISSUE

* Thymus

OBSERVATIONS

* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Granulomatous, Focal, Minimal
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 2-16]		
* Lung	Interstitial	Infiltration Cellular	Minimal
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-15]		
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Moderate
	[Hyperplasia TGLS = 6-14]		
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tissue NOS			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 102

TRT#: 2

SEX: Female

DAY ON TEST: 640

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q102

ORGAN AND ACCOUNTABLE SITE STATUS

Note: "TGL-TNOS"=mammary gland, which see

PRIMARY CAUSE OF DEATH -

Animal Note: fixation artifacts on many tissues

Animal Note: CO/MSAC=Mammary fibroadenoma

Animal Note: LN TGL=RED=congestion,not signif. lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 103

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q103

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Intestine Large, Rectum	* Lymph Node, Bronchial
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
		Degeneration	Fatty, Moderate
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-4]		
* Lung		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
* Nose		Thrombosis	Minimal
* Pancreas		Atrophy	Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-15]		
* Stomach, Forestomach		Ulcer	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 106

TRT#: 4

SEX: Female

DAY ON TEST: 200

DOSE: 0.0MG/M3LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-Q106

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lung

OBSERVATIONS

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Minimal

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Minimal

* Nose

Inflammation

Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 107

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q107

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

INSUFFICIENT TISSUE

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
		Degeneration	Fatty, Minimal
		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
		[Hepatodiaphragmatic Nodule TGLS = 4-4]	
		[Leukemia Mononuclear TGLS = 3-4]	
* Lung		Leukemia Mononuclear	
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 5-14]	
* Spleen		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 1-3,15,2-15]	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 108

TRT#: 4

SEX: Female

DAY ON TEST: 200

DOSE: 0.0MG/M3LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-Q108

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lung

* Lymph Node, Mediastinal

* Nose

OBSERVATIONS

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 109

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q109

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Clitoral GI			
Note: TNOS/Clitoral Gland = Mammary Gland			
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
* Liver		Angiectasis	Moderate
		Basophilic Focus	
[Angiectasis TGLS = 3-16]			
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
[Fibroadenoma TGLS = 1-15]			
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Adenoma TGLS = 4-14]			
Tissue NOS			
Note: TNOS=Mammary gland			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 109

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q109

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Polyp Stromal

[Polyp Stromal TGLS = 2-17]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 110

TRT#: 2

DOSE: 0.0MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 538

HISTO: RZ116/Q110

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

INSUFFICIENT TISSUE

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Focal, Minimal
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
		Degeneration	Fatty, Moderate
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-4]		
* Lung		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-5,6,15]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-3]		

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: fixation artifacts on many tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 111

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q111

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Basophilic Focus TGLS = 4-4,18]		
	[Leukemia Mononuclear TGLS = 3-4,19]		
* Lung	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitialium	Infiltration Cellular	Minimal
	[Hyperplasia TGLS = 5-17]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-15]		
* Spleen		Fibrosis	Moderate
	[Fibrosis TGLS = 2-16]	Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
Tissue NOS			
Note: TNOS=Mammary Gland			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 111

TRT#: 2
DOSE: 0.0MG/M3

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 732
HISTO: RZ116/Q111

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 113

TRT#: 2

SEX: Female

DAY ON TEST: 716

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q113

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Brain	Cerebrum	Compression	
[Compression TGLS = 4-1]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
* Liver	Hepatocyte	Eosinophilic Focus	
		Hyperplasia	Moderate
		Inflammation	Granulomatous, Focal, Moderate
Note: focal hyperplasia			
[Eosinophilic Focus TGLS = 2-16]			
[Hyperplasia TGLS = 2-16]			
* Lung	Interstitial	Infiltration Cellular	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[Adenoma TGLS = 3-14,17]			
* Spleen		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artifacts on some tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 113

TRT#: 2

SEX: Female

DAY ON TEST: 716

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q113

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Pituitary adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 114

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q114

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Bone		Hyperostosis	
* Heart		Cardiomyopathy	Minimal
Note: fixation artifacts			
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
Note: fixation artifacts			
* Lung	Interstitial	Infiltration Cellular	Minimal
[Infiltration Cellular TGLS = 2-5,6]			
* Ovary		Cyst	
[Cyst TGLS = 1-9]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 115

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q115

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone | * Brain | * Clitoral Gland | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx |
| * Lymph Node, Mediastinal | * Nose | * Ovary | * Parathyroid Gland |
| * Salivary Glands | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------------------|----------------------|-------------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Mild |
| * Adrenal Medulla | | Hyperplasia | Moderate |
| * Bone Marrow | | Leukemia Mononuclear | |
| Eye | | Cataract | Moderate |
| | Retina | Degeneration | Moderate |
| | [Cataract TGLS = 2-17] | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Marked |
| | Renal Tubule | Pigmentation | Moderate |
| * Liver | Centrilobular | Atrophy | Moderate |
| | | Basophilic Focus | |
| | | Eosinophilic Focus | |
| | Bile Duct | Hyperplasia | Mild |
| | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLS = 4-4] | | |
| * Lung | | Inflammation | Chronic Active, Minimal |
| | | Leukemia Mononuclear | |
| * Lymph Node, Bronchial | | Leukemia Mononuclear | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| * Lymph Node, Mesenteric | | Leukemia Mononuclear | |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLS = 1-16] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 115

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q115

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas

Atrophy

Mild

* Pituitary Gland

Pars Distalis

Angiectasis

Moderate

Pars Distalis

Hyperplasia

Marked

[Hyperplasia TGLS = 5-14]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-15]

Tissue NOS

Note: TNOS=Mammary Gland

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 116

TRT#: 2

SEX: Female

DAY ON TEST: 677

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q116

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|--------------------------|---------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| * Clitoral Gland | * Esophagus | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx |
| * Lymph Node, Bronchial | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Duodenum

OBSERVATIONS

- | | | | |
|--|----------------|-----------------------------|-----------------|
| * Adrenal Medulla | | Pheochromocytoma Malignant | |
| [Pheochromocytoma Malignant TGLS = 1-14] | | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Moderate |
| | Renal Tubule | Pigmentation | Mild |
| * Liver | | Basophilic Focus | |
| | | Degeneration | Fatty, Minimal |
| * Lung | Alveolar Epith | Hyperplasia | Focal, Moderate |
| Note: "TGL=RED"=marked congestion=not signif. lesion | | | |
| [Hyperplasia TGLS = 4-6] | | | |
| * Ovary | | Granulosa Cell Tumor Benign | |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Angiectasis | Marked |
| [Adenoma TGLS = 3-14] | | | |

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Pheochromocytoma/adrenal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 117

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q117

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

INSUFFICIENT TISSUE

* Intestine Large, Rectum

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Degeneration	Fatty, Minimal
		Inflammation	Granulomatous, Focal, Minimal
Note: several basophilic foci but none 3mm diam			
Note: fixation artifacts			
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Mammary Gland		Fibroadenoma	
		[Fibroadenoma TGLS = 1-15]	
* Nose		Inflammation	Chronic Active, Moderate
Note: unilateral, assoc w/ foreign body			
* Pituitary Gland	Pars Distalis	Adenoma	
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 118

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q118

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy Schwannoma Nos	Minimal
Note: intramural schwannoma [Schwannoma Nos TGLS = 3-16]			
* Kidney	Renal Tubule	Nephropathy Pigmentation Basophilic Focus Degeneration Inflammation	Moderate Moderate
* Liver		Hyperplasia Fibroadenoma	Fatty, Minimal Granulomatous, Focal, Minimal Lymphoid, Mild
* Lymph Node, Mesenteric			
* Mammary Gland			
[Fibroadenoma TGLS = 4-17]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-14]			
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[Hyperplasia TGLS = 1-15]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 119

TRT#: 2

SEX: Female

DAY ON TEST: 642

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q119

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Brain	Cerebrum	Compression	
[Compression TGLS = 3-1]			
* Kidney	Renal Tubule	Nephropathy	Mild
		Pigmentation	Moderate
* Liver	Bile Duct	Basophilic Focus	
	Hepatocyte	Hyperplasia	Minimal
		Hyperplasia	Mild
		Inflammation	Granulomatous, Focal, Minimal
Note: focal hyperplasia			
[Hyperplasia TGLS = 1-4]			
[Hyperplasia TGLS = 1-4]			
* Lung	Interstitium	Infiltration Cellular	Minimal
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[Adenoma TGLS = 2-14]			
* Spleen		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 119

TRT#: 2

SEX: Female

DAY ON TEST: 642

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q119

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Pituitary adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 120

TRT#: 2

DOSE: 0.0MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 667

HISTO: RZ116/Q120

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Bone		Hyperostosis	
Note: femur			
* Brain	Cerebrum	Compression Hydrocephalus	Mild
[Compression TGLS = 3-1]			
[Hydrocephalus TGLS = 4-1]			
* Kidney	Renal Tubule	Nephropathy Pigmentation	Marked Mild
* Liver	Hepatocyte	Degeneration Hyperplasia Inflammation Mixed Cell Focus	Fatty, Mild Moderate Granulomatous, Focal, Moderate
Note: focal hyperplasia			
[Mixed Cell Focus TGLS = 1-15]			
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-14]			
* Spleen		Pigmentation	Hemosiderin, Mild
* Stomach, Forestomach		Inflammation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 120

TRT#: 2

SEX: Female

DAY ON TEST: 667

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q120

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 121

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q121

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Marked
Note: fixation artifacts			
* Liver	Bile Duct	Basophilic Focus	Mild
		Hyperplasia	Granulomatous, Focal, Mild
		Inflammation	Minimal
* Lung	Interstitialium	Infiltration Cellular	Lymphoid, Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric		Hyperplasia	
* Mammary Gland		Fibroadenoma	
Note: 2 separate tumors			
[Fibroadenoma TGLS = 1-15,2-16]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 122

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q122

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Marked
* Adrenal Medulla		Hyperplasia	Minimal
* Clitoral Gland		Hyperplasia	Cystic, Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
	[Adenoma TGLS = 1-14]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 123

TRT#: 2

SEX: Female

DAY ON TEST: 657

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q123

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Clitoral Gland		Hyperplasia	Cystic, Mild
[Hyperplasia TGLS = 3-9]			
* Heart		Cardiomyopathy	Minimal
[Leukemia Mononuclear TGLS = 10-20]		Leukemia Mononuclear	
* Kidney		Cyst	
		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
[Cyst TGLS = 7-3]			
* Liver	Centrilobular	Atrophy	Moderate
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-4]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 11-5,6]			
Lymph Node	Iliac	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-18,9-2,6-17]			
[Leukemia Mononuclear TGLS = 8-18,9-2,6-17]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 123

TRT#: 2

SEX: Female

DAY ON TEST: 657

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q123

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-18,9-2,6-17]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-18,9-2,6-17]			
* Parathyroid Gland		Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 12-14]			
* Skin	Tail	Hyperkeratosis	Moderate
		Hyperkeratosis	Mild
	Tail	Inflammation	Mild
		Inflammation	Mild
[Hyperkeratosis TGLS = 2-16,1-19]			
[Hyperkeratosis TGLS = 2-16,1-19]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-3,15]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 124

TRT#: 2

SEX: Female

DAY ON TEST: 377

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q124

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Brain |
| * Clitoral Gland | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lung |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Nose | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | * Uterus | | |

OBSERVATIONS

- | | | |
|---------------------------------|------------------|-------------------------------|
| * Bone Marrow | Inflammation | Granulomatous, Focal, Minimal |
| * Kidney | Nephropathy | Minimal |
| * Liver | Basophilic Focus | |
| | Inflammation | Granulomatous, Focal, Minimal |
| * Mammary Gland | Fibroadenoma | |
| [Fibroadenoma TGLS = 2-15,16] | | |
| * Ovary | Cyst | |
| [Cyst TGLS = 1-9] | | |
| Tissue NOS | | |
| Note: TGL "TNOS"=mammary gland | | |

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=massive mammary tumor, fibro adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 125

TRT#: 2

SEX: Female

DAY ON TEST: 721

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q125

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Bone Marrow		Atrophy	Mild
* Heart	Atrium	Thrombosis	
* Kidney		Nephropathy	Mild
[Nephropathy TGLS = 2-3]			
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
		Degeneration	Fatty, Moderate
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Pigmentation	Hemosiderin, Mild
[Leukemia Mononuclear TGLS = 1-4]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
[Hyperplasia TGLS = 3-14]			
* Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 125

TRT#: 2

SEX: Female

DAY ON TEST: 721

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q125

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 126

TRT#: 2

SEX: Female

DAY ON TEST: 696

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q126

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex	Leukemia Mononuclear	
* Adrenal Medulla	Hyperplasia	Mild
* Brain	Leukemia Mononuclear	
* Heart	Leukemia Mononuclear	
* Intestine Small, Ileum	Hyperplasia	Lymphoid, Moderate
* Kidney	Leukemia Mononuclear	
* Liver	Nephropathy	Moderate
	Degeneration	Fatty, Moderate
	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-4]		
* Lung	Leukemia Mononuclear	
* Lymph Node, Bronchial	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-10,7-6,6-2,5-8]		
* Lymph Node, Mandibular	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-10,7-6,6-2,5-8]		
* Lymph Node, Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-10,7-6,6-2,5-8]		
* Lymph Node, Mesenteric	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-10,7-6,6-2,5-8]		
* Pituitary Gland	Leukemia Mononuclear	
* Spleen	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-3]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 126

TRT#: 2

SEX: Female

DAY ON TEST: 696

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q126

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 127

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q127

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Ovary		Cyst	
[Cyst TGLS = 2-9]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Adenoma TGLS = 1-14]			
* Spleen		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 128

TRT#: 4

SEX: Female

DAY ON TEST: 200

DOSE: 0.0MG/M3LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-Q128

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lung

* Lymph Node, Bronchial

* Lymph Node, Mediastinal

* Nose

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 129

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q129

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Bone Marrow		Inflammation	Granulomatous, Focal, Minimal
* Clitoral Gland		Hyperplasia	Cystic, Moderate
[Hyperplasia TGLS = 1-9]			
* Kidney	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Mild
* Lung	Interstitialium	Infiltration Cellular	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 130

TRT#: 2

SEX: Female

DAY ON TEST: 574

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q130

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone Note: of skull [Hyperostosis TGLS = 5-16]		Hyperostosis	
* Brain Note: mineralization in local vessels;origin may=infarction Note: TGL"cerebellum" is CEREBRAL CORTEX [Cyst TGLS = 4-1]		Cyst	
* Clitoral Gland [Carcinoma TGLS = 2-9]		Carcinoma	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
* Mammary Gland [Fibroadenoma TGLS = 1-15]		Fibroadenoma	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Clitoral gland tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 131

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q131

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Liver	Inflammation	Granulomatous, Minimal
* Nose	Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 132	TRT#: 4	SEX: Female	DAY ON TEST: 200
	DOSE: 0.0MG/M3LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-Q132

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung	Interstitialium	Infiltration Cellular Metaplasia	Minimal Osseous, Minimal
* Nose	Olfactory Epi	Erosion	Focal, Mild
Ovary		Cyst	
[Cyst TGLS = 1-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 133

TRT#: 2

SEX: Female

DAY ON TEST: 721

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q133

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Atrophy	Mild
* Clitoral Gland		Hyperplasia	Cystic, Moderate
[Hyperplasia TGLS = 2-9]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 4-3]			
* Liver		Basophilic Focus	
		Degeneration	Fatty, Mild
[Hepatodiaphragmatic Nodule TGLS = 3-16]		Hepatodiaphragmatic Nodule	
* Lung	Interstitium	Infiltration Cellular	Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-14]			
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
		Ulcer	Marked
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 133

TRT#: 2

SEX: Female

DAY ON TEST: 721

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q133

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Gastric ulceration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 134

TRT#: 2

SEX: Female

DAY ON TEST: 477

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q134

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Islets, Pancreatic
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

OBSERVATIONS

* Brain Note: in medulla [Hemorrhage TGLS = 7-1]		Hemorrhage	Moderate
* Kidney Renal Tubule		Nephropathy Pigmentation	Mild Mild
* Liver Note: fixation artifacts			
* Lung Note: TGL"RED"=congestion, not signif. lesion			
Lymph Node [Hyperplasia TGLS = 2-15]	Renal	Hyperplasia	Lymphoid, Mild
* Ovary [Cyst TGLS = 1-9]		Cyst	
* Pituitary Gland Note: interpret as cystic adenoma w/ rupture=hem. in medulla [Adenoma TGLS = 5,6-14]	Pars Distalis	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 134

TRT#: 2

SEX: Female

DAY ON TEST: 477

DOSE: 0.0MG/M3

DISP: Natural Death

HISTO: RZ116/Q134

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL"Pigment,MedLN"=not significant leaion

Animal Note: COD=Pituitary tumor w/ rupture

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 135

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q135

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Mixed Cell Focus	
Note: focal degeneration, of hyperplastic nodule??			
[Mixed Cell Focus TGLS = 2-16]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
	Interstitialium	Infiltration Cellular	Minimal
Note: 1 large focus of early, minimal proliferation {slide 6}			
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Adenoma TGLS = 3-14]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tissue NOS			
Note: TNOS=Mammary gland			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 136

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0.0MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/Q136

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex

* Adrenal Medulla

* Bone

* Bone Marrow

* Brain

* Clitoral Gland

* Esophagus

* Heart

* Intestine Large, Cecum

* Intestine Large, Colon

* Intestine Large, Rectum

* Intestine Small, Duodenum

* Intestine Small, Ileum

* Intestine Small, Jejunum

* Islets, Pancreatic

* Kidney

* Larynx

* Lung

* Lymph Node, Bronchial

* Lymph Node, Mandibular

* Lymph Node, Mediastinal

* Lymph Node, Mesenteric

* Mammary Gland

* Nose

* Ovary

* Pancreas

* Parathyroid Gland

* Pituitary Gland

* Salivary Glands

* Skin

* Spleen

* Stomach, Forestomach

* Stomach, Glandular

* Thymus

* Thyroid Gland

* Trachea

* Urinary Bladder

* Uterus

OBSERVATIONS

* Liver

Basophilic Focus

Inflammation

Granulomatous, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 139

TRT#: 2

SEX: Female

DAY ON TEST: 477

DOSE: 0.0MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/Q139

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung	Interstitial	Infiltration Cellular	Minimal
* Mammary Gland		Fibroadenoma	
Note: HUGH			
[Fibroadenoma TGLS = 1-15,16]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mammary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 140

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0.0MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/Q140

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Brain	Cerebrum	Compression	
[Compression TGLS = 2-1]			
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung	Interstitialium	Infiltration Cellular	Minimal
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[Adenoma TGLS = 3-14]			
* Spleen		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 211

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: RZ116/R211

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

INSUFFICIENT TISSUE

* Parathyroid Gland

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Marked
* Bone		Hyperostosis	
* Brain	Cerebrum	Compression	
[Compression TGLS = 5-16]			
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 6-9]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Mild
[Nephropathy TGLS = 2-3]			
* Liver		Basophilic Focus	
		Degeneration	Fatty, Minimal
		Inflammation	Granulomatous, Focal, Minimal
		Leukemia Mononuclear	
* Lung	Alveolar Epith	Fibrosis	Minimal
	Alveolus	Hyperplasia	Focal, Mild
	Bronchus	Hyperplasia	Macrophage, Moderate
	Interstitium	Hyperplasia	Lymphoid, Minimal
		Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 211	TRT#: 6	SEX: Female	DAY ON TEST: 730
	DOSE: 0.15 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/R211

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 3-5,6]	Alveolus	Proteinosis	Moderate
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Adenoma TGLS = 4-14]			
* Spleen		Leukemia Mononuclear	
Tissue NOS			
Note: TNOS=Mammary Gland			

PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 212

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R212

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Degeneration	Fatty, Minimal
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Moderate
	[Inflammation TGLS = 2-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 212

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R212

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLS = 1-15]

* Spleen

Pigmentation

Hemosiderin, Mild

* Stomach, Forestomach

Hyperplasia

Squamous, Mild

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 213

TRT#: 8

SEX: Female

DAY ON TEST: 200

DOSE: 0.15 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-R213

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
[Hyperplasia TGLS = 1-3,4]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Minimal
* Nose		Inflammation	Chronic Active, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 214

TRT#: 8

SEX: Female

DAY ON TEST: 200

DOSE: 0.15 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-R214

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lymph Node, Bronchial

* Lymph Node, Mediastinal

OBSERVATIONS

* Lung

Alveolus
Bronchus
Interstitialium

Hyperplasia
Hyperplasia
Infiltration Cellular
Inflammation

Macrophage, Mild
Lymphoid, Minimal
Minimal
Chronic Active, Minimal

[Hyperplasia TGLS = 2-3,4]

* Nose

Olfactory Epi

Erosion

Focal, Minimal

Ovary

Cyst

[Cyst TGLS = 1-8]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 216

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.15 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/R216

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Minimal
* Lung		Hemorrhage	Acute, Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 1-5]			
* Nose	Nasolacrim Dct	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 217	TRT#: 8	SEX: Female	DAY ON TEST: 200
	DOSE: 0.15 LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-R217

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Eye	* Kidney	* Lymph Node, Mediastinal	* Nose
-----	----------	---------------------------	--------

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 2-3,4]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 218

TRT#: 6

SEX: Female

DAY ON TEST: 622

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R218

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Bone | * Bone Marrow | * Brain |
| * Clitoral Gland | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland | * Ovary |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|--------------------------------------|-----------------|-----------------------|--------------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Moderate |
| * Kidney | | Nephropathy | Mild |
| * Liver | | Degeneration | Cystic, Minimal |
| * Lung | | Fibrosis | Mild |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Interstitialium | Infiltration Cellular | Mild |
| | | Inflammation | Chronic Active, Moderate |
| | Alveolus | Proteinosis | Mild |
| | | | |
| [Hyperplasia TGLS = 3-5,6] | | | |
| [Inflammation TGLS = 2-5,6] | | | |
| * Lymph Node, Bronchial | | Hyperplasia | Lymphoid, Minimal |
| * Nose | | Inflammation | Chronic Active, Mild |
| * Skin | | Fibrosarcoma | |
| Note: DX based on + masson trichrome | | | |
| [Fibrosarcoma TGLS = 1-15] | | | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 219

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R219

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Hyperplasia	Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Mild
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
		Metaplasia	Osseous, Minimal
	Alveolus	Proteinosis	Moderate
	[Hyperplasia TGLS = 2-5,6]		
	[Hyperplasia TGLS = 2-5,6]		
	[Inflammation TGLS = 3-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 219

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R219

ORGAN AND ACCOUNTABLE SITE STATUS

* Ovary

[Granulosa-Theca Tumor Benign TGLS = 1-9]

Hyperplasia
Granulosa-Theca Tumor Benign

Macrophage, Minimal

* Pituitary Gland

[Adenoma TGLS = 4-14]

Pars Distalis

Adenoma

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 220

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 721

HISTO: RZ116/R220

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Brain	Cerebrum	Compression	
		Hydrocephalus	Mild
		[Compression TGLS = 2-1]	
		[Hydrocephalus TGLS = 4-1]	
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung	Alveolus	Fibrosis	Mild
		Hyperplasia	Macrophage, Mild
	Alveolus	Inflammation	Chronic Active, Mild
		Proteinosis	Minimal
		[Inflammation TGLS = 1-5,6]	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 3-14]	
* Spleen		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 220

TRT#: 6

SEX: Female

DAY ON TEST: 721

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R220

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 221

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R211

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Clitoral Gland [Hyperplasia TGLS = 1-9]		Hyperplasia	Cystic, Moderate
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Intestine Small, Jejunum		Hyperplasia	Lymphoid, Mild
* Kidney	Renal Tubule	Nephropathy Pigmentation Basophilic Focus	Mild Marked
* Liver Note: TGL "red raised focus" not identified			
* Lung	Alveolar Epith Alveolus Bronchus Interstitium	Fibrosis Hyperplasia Hyperplasia Hyperplasia Infiltration Cellular Inflammation	Mild Focal, Mild Macrophage, Moderate Lymphoid, Minimal Mild Chronic Active, Moderate
	Alveolus [Inflammation TGLS = 3-5,6]	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia Hyperplasia	Macrophage, Minimal Lymphoid, Mild
* Pituitary Gland [Adenoma TGLS = 4-14]	Pars Distalis Pars Distalis	Adenoma Angiectasis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 221

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R211

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Pigmentation

Hemosiderin, Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 222

TRT#: 6

SEX: Female

DAY ON TEST: 482

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R222

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Clitoral Gland	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Marked
* Adrenal Medulla		Hyperplasia	Minimal
* Brain	Cerebrum	Compression	
[Compression TGLS = 2-1]			
* Kidney	Renal Tubule	Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Inflammation	Granulomatous, Focal, Minimal
* Lung	Alveolus	Fibrosis	Mild
		Hyperplasia	Macrophage, Mild
	Alveolus	Inflammation	Chronic Active, Mild
[Inflammation TGLS = 1-5,6]		Proteinosis	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Spleen		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary Tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 223

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: RZ116/R223

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone		Hyperostosis	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Basophilic Focus TGLS = 1-4]		
* Lung		Leukemia Mononuclear	
	Note: leukemic infiltrates obscure lesion grading		
	[Leukemia Mononuclear TGLS = 3,4-5,6]		
* Lymph Node, Bronchial		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-6,6-2]		
* Lymph Node, Mandibular		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-6,6-2]		
* Lymph Node, Mediastinal		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-6,6-2]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-6,6-2]		
* Pancreas		Atrophy	Moderate
		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 223

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R223

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 5-14]	Pars Distalis	Angiectasis	Mild
* Spleen		Leukemia Mononuclear	
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 2-2]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 225

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R225

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Mild
[Basophilic Focus TGLS = 1-4]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Focal, Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Mild
Note: Alv.epith.hyper.w/mod atypia but no alveolar distort.			
[Inflammation TGLS = 2-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 226

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R226

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Clitoral Gland
- * Intestine Small, Duodenum
- * Larynx
- * Nose
- * Salivary Glands
- * Stomach, Glandular
- * Uterus

- * Bone
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Ovary
- * Skin
- * Thymus

- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Lymph Node, Mediastinal
- * Parathyroid Gland
- * Spleen
- * Trachea

- * Brain
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Stomach, Forestomach
- * Urinary Bladder

MISSING

- * Pancreas

INSUFFICIENT TISSUE

- * Intestine Large, Rectum

OBSERVATIONS

- * Adrenal Medulla

Hyperplasia Moderate

Pheochromocytoma Benign

- * Heart

Cardiomyopathy

Minimal

- * Kidney

Nephropathy

Mild

- * Liver

Basophilic Focus

- * Lung

Fibrosis

Mild

Alveolus

Hyperplasia

Macrophage, Moderate

Interstitialium

Infiltration Cellular

Mild

Inflammation

Chronic Active, Mild

Alveolus

Proteinosis

Mild

[Inflammation TGLS = 3-5,6]

[Proteinosis TGLS = 2-5,6]

- * Lymph Node, Bronchial

Hyperplasia

Macrophage, Mild

- * Mammary Gland

Hyperplasia

Lymphoid, Moderate

Fibroadenoma

[Fibroadenoma TGLS = 1-15]

- * Thyroid Gland

C Cell

Hyperplasia

Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 226

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R226

ORGAN AND ACCOUNTABLE SITE STATUS

Tissue NOS

Note: TNOS=Mammary Gland

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 227

TRT#: 6

SEX: Female

DAY ON TEST: 482

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R227

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Bronchial

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver	Centrilobular	Atrophy	Minimal
		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
Note: focal hyperplasia			
[Hepatodiaphragmatic Nodule TGLS = 2-15]			
* Lung	Alveolus	Fibrosis	Mild
		Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 227

TRT#: 6

SEX: Female

DAY ON TEST: 482

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R227

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 228

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: RZ116/R228

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Clitoral Gland		Hyperplasia	Cystic, Marked
Note: Squamous metaplasia w/ rupture of cyst [Hyperplasia TGLS = 1-9]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 2-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 228

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: RZ116/R228

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 229

TRT#: 6

SEX: Female

DAY ON TEST: 609

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R229

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Minimal
	[Inflammation TGLS = 2-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-15,16,17]		
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Moderate
	[Hyperplasia TGLS = 3-14]		

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mammary fibroadenoma [large size]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 230

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: RZ116/R230

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Granulomatous, Focal, Minimal
[Hepatodiaphragmatic Nodule TGLS = 1-15]			
* Lung		Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 3-5,6]			
[Hyperplasia TGLS = 3-5,6]			
[Hyperplasia TGLS = 3-5,6]			
[Inflammation TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 230

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R230

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular

Hyperplasia

Plasma Cell, Mild

* Pituitary Gland

Pars Distalis

Angiectasis

Mild

[Angiectasis TGLS = 5-14]

* Thyroid Gland

C Cell

Carcinoma

[Carcinoma TGLS = 2-2]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 231

TRT#: 6

SEX: Female

DAY ON TEST: 699

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R231

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Bone		Hyperostosis	
Note: femur			
* Bone Marrow		Leukemia Mononuclear	
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Degeneration	Fatty, Marked
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4,5-4,15]			
* Lung		Fibrosis	Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Note: leukemia interferes w/ lesion grading			
[Inflammation TGLS = 7-5,6]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-6]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[Hyperplasia TGLS = 2-10]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 231

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 699

HISTO: RZ116/R231

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal [Leukemia Mononuclear TGLS = 6-6]		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Cystic, Moderate
* Ovary [Cyst TGLS = 3-9]		Cyst	
* Pituitary Gland [Adenoma TGLS = 8-14]	Pars Distalis	Adenoma	
* Spleen		Leukemia Mononuclear	
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 232

TRT#: 6

SEX: Female

DAY ON TEST: 590

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R232

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear Pheochromocytoma Benign	
[Pheochromocytoma Benign TGLS = 3-14]			
* Bone Marrow		Leukemia Mononuclear	
* Kidney	Renal Tubule	Nephropathy Pigmentation Degeneration Leukemia Mononuclear	Mild Marked Fatty, Moderate
[Leukemia Mononuclear TGLS = 2-4]			
* Lung	Alveolus	Fibrosis Hyperplasia Inflammation Leukemia Mononuclear	Mild Macrophage, Minimal Chronic Active, Mild
[Inflammation TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Nose		Inflammation	Chronic Active, Moderate
Note: inflam. assoc. w/ foreign body			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 5-14]			
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 232

TRT#: 6

SEX: Female

DAY ON TEST: 590

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R232

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-3]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell Leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 233

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R233

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Bone Marrow		Leukemia Mononuclear	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-4]		
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Moderate
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Mild
	Note: TGL=Fibrotic focus w/ epithel. hyperplasia		
	[Fibrosis TGLS = 3-16]		
	[Inflammation TGLS = 4-5,6]		
* Lymph Node, Bronchial		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 233

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R233

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mandibular

Leukemia Mononuclear

* Lymph Node, Mediastinal

Leukemia Mononuclear

* Lymph Node, Mesenteric

Leukemia Mononuclear

* Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Mild

[Adenoma TGLS = 5-14]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-15]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 234

TRT#: 6

SEX: Female

DAY ON TEST: 653

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R234

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Thymus

OBSERVATIONS

* Brain	Cerebrum	Compression	
[Compression TGLS = 6-1]			
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Degeneration	Fatty, Moderate
		Mixed Cell Focus	
Note: focal hyperplasia			
[Mixed Cell Focus TGLS = 2-4,15]			
* Lung	Alveolus	Fibrosis	Mild
	Interstitium	Hyperplasia	Macrophage, Mild
		Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 4-5,6]			
[Proteinosis TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 1-10]			
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
[Hyperplasia TGLS = 1-10]			
* Mammary Gland		Hyperplasia	Cystic, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 234

TRT#: 6

SEX: Female

DAY ON TEST: 653

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R234

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 5-14]

* Spleen

Pigmentation

Hemosiderin, Mild

* Stomach, Forestomach

Hyperplasia

Squamous, Marked

Ulcer

Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pit. tumor & Gastric ulceration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 235

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R235

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

INSUFFICIENT TISSUE

* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Moderate
	[Hyperplasia TGLS = 3-5,6]		
* Lymph Node, Mediastinal		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Carcinoma	
		Fibroadenoma	

Note: Two separate glands, two separate neoplasms

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 235

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R235

ORGAN AND ACCOUNTABLE SITE STATUS

[Carcinoma TGLS = 1-15]

[Fibroadenoma TGLS = 2-16]

Tissue NOS

Note: Both TGLs are Mammary Glands

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 236

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: RZ116/R236

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Granulomatous, Focal, Minimal
[Hyperplasia TGLS = 2-4]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
[Inflammation TGLS = 3-5,6]	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
[Hyperplasia TGLS = 4-6,4-6]			
[Hyperplasia TGLS = 4-6,4-6]			
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 236

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R236

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 5-14]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 237

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R237

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Bone Marrow		Leukemia Mononuclear	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-4]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Moderate
[Hyperplasia TGLS = 3-5,6,16]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-15]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 237

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R237

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

Follicular Cel

Carcinoma

C Cell

Hyperplasia

Minimal

Note: Ca DX based on anaplasia & mitotic figure increase

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 238

TRT#: 6

SEX: Female

DAY ON TEST: 538

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R238

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

Eye		Cataract	Moderate
[Cataract TGLS = 1-15]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 5-5,6]			
[Proteinosis TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Thyroid Gland	C Cell	Carcinoma	
Note: Thyroid Ca is locallay invasive			
[Carcinoma TGLS = 3-2]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 238

TRT#: 6

SEX: Female

DAY ON TEST: 538

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R238

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Undetermined

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 239

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: RZ116/R239

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum	* Thymus
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OBSERVATIONS

* Clitoral Gland [Hyperplasia TGLS = 2,3-9]		Hyperplasia	Cystic, Moderate
* Kidney	Renal Tubule	Nephropathy Pigmentation Basophilic Focus Leukemia Mononuclear	Minimal Mild
* Liver [Leukemia Mononuclear TGLS = 5-4]			
* Lung	Alveolus Bronchus Interstitialium Alveolus [Inflammation TGLS = 6-5,6]	Fibrosis Hyperplasia Hyperplasia Infiltration Cellular Inflammation Proteinosis	Mild Macrophage, Moderate Lymphoid, Mild Mild Chronic Active, Marked Minimal
* Lymph Node, Bronchial		Hyperplasia Hyperplasia	Lymphoid, Mild Macrophage, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Mammary Gland [Fibroadenoma TGLS = 1-15]		Fibroadenoma	
* Pancreas		Atrophy	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 239

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R239

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 4-3]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 240

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 612

HISTO: RZ116/R240

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 2-5,6]			
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Thyroid Gland	C Cell	Adenoma	
Vagina		Schwannoma Malignant	
Note: DX based on neg.collagen stain, type B pattern			
[Schwannoma Malignant TGLS = 1-15]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Vaginal tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 242

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 636

HISTO: RZ116/R242

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Hyperplasia	Marked
* Bone Marrow	Erythroid Cell	Hyperplasia	Mild
* Heart		Schwannoma Nos	
Note: intramural			
[Schwannoma Nos TGLS = 5-19]			
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
		Squamous Cell Carcinoma	
Note: intrapulmonary metastasis			
Note: SQC Ca,extesive local, pleural invasion			
[Inflammation TGLS = 7-5]			
[Squamous Cell Carcinoma TGLS = 8-6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 9-14]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Stomach, Forestomach		Hyperplasia	Squamous, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 242	TRT#: 6	SEX: Female	DAY ON TEST: 636
	DOSE: 0.15 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/R242

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Note: TGL"THYMUS"=Tumor infiltrate in mediastinum

Tissue NOS	Mediastinum	Squamous Cell Carcinoma	Metastatic (Lung)
	Thoracic	Squamous Cell Carcinoma	Metastatic (Lung)
	[Squamous Cell Carcinoma TGLS = 2-17,4-18,6-18]		
	[Squamous Cell Carcinoma TGLS = 2-17,4-18,6-18]		

PRIMARY CAUSE OF DEATH - Lung Squamous Cell Carcinoma

Animal Note: TGL"MED LN"=Tumor infiltrate in mediastinum

Animal Note: CO/MSAC=Squamous Cell Ca, Primary,lung

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 243

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 649

HISTO: RZ116/R243

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Brain	Cerebrum	Compression	
[Compression TGLS = 8-1]			
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney	Renal Tubule	Nephropathy	Minimal
	Centrilobular	Pigmentation	Mild
* Liver		Atrophy	Moderate
		Basophilic Focus	
		Leukemia Mononuclear	
Note: fixation artifacts			
* Lung	Alveolus	Fibrosis	Minimal
		Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 6-5,6,15,16]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Fibrosis	Mild
[Fibrosis TGLS = 4-10]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 243

TRT#: 6

SEX: Female

DAY ON TEST: 649

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R243

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 4-17]

* Skin

Ulcer

Marked

[Ulcer TGLS = 1-18,3-19,2-17]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-3]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 244

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R244

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Intestine Large, Rectum		Parasite Metazoan	
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Granulomatous, Focal, Minimal
[Clear Cell Focus TGLS = 1-16]			
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 3-5,6,15]			
[Proteinosis TGLS = 2-5,6,15]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 244

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R244

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Nasolacrim Dct	Inflammation	Mild
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
[Hyperplasia TGLS = 4-14]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 245

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 727

HISTO: RZ116/R245

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Heart		Leukemia Mononuclear	
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
		Degeneration	Fatty, Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-4]		
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
	[Inflammation TGLS = 5-5,6]		
	[Proteinosis TGLS = 4-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mediastinal		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-15]		
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 245

TRT#: 6

SEX: Female

DAY ON TEST: 727

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R245

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 2-3]

* Thyroid Gland

C Cell

Hyperplasia

Mild

Tissue NOS

Note: TNOS is Mammary Gland

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Fibroadenoma of mammary gland

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 246

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Natural Death

DAY ON TEST: 452

HISTO: RZ116/R246

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

OBSERVATIONS

* Bone Marrow		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-4]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 6-5,6]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-15,4-2,5-6]			
[Leukemia Mononuclear TGLS = 3-15,4-2,5-6]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-15,4-2,5-6]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-15,4-2,5-6]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 246

TRT#: 6

SEX: Female

DAY ON TEST: 452

DOSE: 0.15 MG/M3

DISP: Natural Death

HISTO: RZ116/R246

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 3-15,4-2,5-6]

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-15,4-2,5-6]

* Ovary

Leukemia Mononuclear

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-3]

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 247

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 706

HISTO: RZ116/R247

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Minimal
* Kidney	Renal Tubule	Nephropathy Pigmentation	Mild Moderate
* Liver	Bile Duct	Basophilic Focus Degeneration Hyperplasia Leukemia Mononuclear	Cystic, Minimal Minimal
* Lung	Alveolus Interstitium Alveolus	Fibrosis Hyperplasia Infiltration Cellular Inflammation Proteinosis	Moderate Macrophage, Mild Minimal Chronic Active, Mild Mild
	[Fibrosis TGLS = 6-5,6] [Hyperplasia TGLS = 5-5,6]		
* Lymph Node, Bronchial		Hyperplasia Hyperplasia	Macrophage, Minimal Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Fibroadenoma Hyperplasia	Cystic, Mild
	[Fibroadenoma TGLS = 1-15]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 247

TRT#: 6

SEX: Female

DAY ON TEST: 706

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R247

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Chronic Active, Moderate
	Olfactory Epi	Metaplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
	[Adenoma TGLS = 4-14]		
* Spleen		Leukemia Mononuclear	
		Pigmentation	Hemosiderin, Moderate
Tissue NOS			
Note: TNOS throat mass=Mammary tissue, see MAMMARY GL			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mammary fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 248

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Scheduled Sacrifice

DAY ON TEST: 459

HISTO: RZ116/R248

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	Ear	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Granulomatous, Minimal
[Hepatodiaphragmatic Nodule TGLS = 1-16]			
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 2-5]			
* Lymph Node, Bronchial		Hemorrhage	Acute, Minimal
		Hyperplasia	Lymphoid, Mild
[Hemorrhage TGLS = 3-6]			
[Hyperplasia TGLS = 3-6]			
* Lymph Node, Mediastinal		Hyperplasia	Macrophage, Minimal
* Nose		Inflammation	Chronic Active, Minimal
Zymbal's Gland		Carcinoma	
[Carcinoma TGLS = 4-15]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 249

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Scheduled Sacrifice

DAY ON TEST: 459

HISTO: RZ116/249

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum	* Lymph Node, Mandibular
---------------------------	--------------------------

OBSERVATIONS

* Kidney		Nephropathy	Mild
* Lung		Hemorrhage	Acute, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 2-5]			
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-14]			
* Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 250

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.15 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/R250

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Liver
- * Nose
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder

- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mediastinal
- * Ovary
- * Skin
- * Thymus
- * Uterus

- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Lymph Node, Mesenteric
- * Pancreas
- * Spleen
- * Thyroid Gland

- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Larynx
- * Mammary Gland
- * Parathyroid Gland
- * Stomach, Forestomach
- * Trachea

MISSING

- * Lymph Node, Mandibular

INSUFFICIENT TISSUE

- * Adrenal Medulla

OBSERVATIONS

* Lung		Hemorrhage	Acute, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitial	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 1-5]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
* Pituitary Gland		Cyst	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 251

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R251

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
		Basophilic Focus	
* Liver			
Note: some fixation artifacts			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Hyperplasia TGLS = 1-5,6,15]			
[Inflammation TGLS = 2-5,6]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Adenoma TGLS = 3-14]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 253

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R253

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Larynx		Inflammation	Mild
Note: assoc w/ foreign body			
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 1-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 254

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R254

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
	[Inflammation TGLS = 1-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Cyst	
	[Cyst TGLS = 2-14]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 255

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 642

HISTO: RZ116/S255

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Glandular	* Trachea	* Uterus

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-9]			
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Minimal
	Centrilobular	Pigmentation	Moderate
* Liver		Atrophy	Moderate
	Bile Duct	Basophilic Focus	
		Hyperplasia	Minimal
		Leukemia Mononuclear	
Note: fixation artifacts			
[Leukemia Mononuclear TGLS = 4-4]			
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
		Leukemia Mononuclear	
Note: massive GCL obscures lesion grading			
[Leukemia Mononuclear TGLS = 6-5,6]			
Lymph Node	Inguinal	Leukemia Mononuclear	
* Lymph Node, Bronchial		Leukemia Mononuclear	
* Lymph Node, Mandibular		Leukemia Mononuclear	
* Lymph Node, Mediastinal		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 255	TRT#: 6	SEX: Female	DAY ON TEST: 642
	DOSE: 0.15 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/S255

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 8-14]	Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-3]		
* Stomach, Forestomach		Leukemia Mononuclear	
* Thymus		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-2]		
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tissue NOS	Mediastinum	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-15]		
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 256

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: RZ116/R256

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Clitoral Gland		Hyperplasia	Cystic, Marked
Note: secondarily infected [Hyperplasia TGLS = 1-9]			
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
* Lung	Alveolus	Fibrosis	Minimal
	Interstitialium	Hyperplasia	Macrophage, Mild
		Infiltration Cellular	Minimal
	Alveolus	Inflammation	Chronic Active, Mild
		Proteinosis	Moderate
[Inflammation TGLS = 6-5,6] [Proteinosis TGLS = 5-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2,3-3]			
* Thyroid Gland	C Cell	Carcinoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 256

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R256

ORGAN AND ACCOUNTABLE SITE STATUS

[Carcinoma TGLS = 4-15]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 257

TRT#: 6

SEX: Female

DAY ON TEST: 640

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R257

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Bone		Squamous Cell Carcinoma	Metastatic (Tooth)
Note: local invasion w/ osteolysis, proliferation [Squamous Cell Carcinoma TGLS = 6-16]			
* Kidney	Renal Tubule	Nephropathy Pigmentation Basophilic Focus Degeneration Degeneration Hepatodiaphragmatic Nodule Inflammation Leukemia Mononuclear	Mild Mild Fatty, Moderate Cystic, Minimal Granulomatous, Focal, Minimal
[Hepatodiaphragmatic Nodule TGLS = 3-4] [Leukemia Mononuclear TGLS = 2-4,17]			
* Lung	Alveolus Alveolus	Fibrosis Hyperplasia Inflammation Proteinosis	Mild Macrophage, Mild Chronic Active, Mild Mild
[Fibrosis TGLS = 5-5,6] [Proteinosis TGLS = 4-5,6]			
* Lymph Node, Mandibular		Hyperplasia Hyperplasia	Plasma Cell, Mild Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 257

TRT#: 6

SEX: Female

DAY ON TEST: 640

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R257

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Mammary Gland		Hyperplasia	Cystic, Mild
* Ovary		Cyst	
[Cyst TGLS = 1-9]			
Skeletal Muscle		Squamous Cell Carcinoma	Metastatic (Tooth)
Note: local invasion , Squam Cell Ca of oral mucosa			
[Squamous Cell Carcinoma TGLS = 7-15]			
* Spleen		Leukemia Mononuclear	
Tooth	Gingiva	Squamous Cell Carcinoma	
Note: invasion around tooth & into adjacent tissues			
[Squamous Cell Carcinoma TGLS = 6-16]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Squamous Cell Ca, oral mucosa

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 258

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R258

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Clitoral Gland		Carcinoma	
Note: Ca DX based on dysplasia of cystic epithelium			
Note: cystic Ca has ruptured causing inflammation			
[Carcinoma TGLS = 1-9]			
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Mild
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Hyperplasia TGLS = 3-5,6]			
[Inflammation TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	
[Adenoma TGLS = 5-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 258

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R258

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 260

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R260

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Clitoral Gland [Hyperplasia TGLS = 1-9]		Hyperplasia	Cystic, Moderate
* Kidney	Renal Tubule	Nephropathy Pigmentation Basophilic Focus Inflammation Fibrosis	Moderate Moderate Granulomatous, Focal, Minimal Mild
* Liver		Hyperplasia	Focal, Mild
* Lung	Alveolar Epith Alveolus Interstitialium Alveolus [Inflammation TGLS = 3-5,6]	Hyperplasia Hyperplasia Infiltration Cellular Inflammation Proteinosis	Macrophage, Mild Moderate Chronic Active, Moderate Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose	Nasolacrim Dct	Inflammation	Mild
* Pancreas		Atrophy	Moderate
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus [Polyp Stromal TGLS = 2-15]		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 261	TRT#: 8 DOSE: 0.15 LUNG TOX	SEX: Female DISP: Scheduled Sacrifice	DAY ON TEST: 200 HISTO: RZ16-R261
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
----------	-------------------------	---------------------------

OBSERVATIONS

* Lung	Alveolus Interstitialium	Hyperplasia Infiltration Cellular Inflammation	Macrophage, Mild Minimal Chronic Active, Minimal
[Hyperplasia TGLS = 1-3,4] * Nose	Olfactory Epi	Erosion Inflammation	Focal, Minimal Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 262

TRT#: 6

SEX: Female

DAY ON TEST: 594

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R262

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Adrenal Medulla		Hyperplasia	Minimal
* Brain	Cerebrum	Compression	
[Compression TGLS = 7-1]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Degeneration	Fatty, Mild
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
[Fibrosis TGLS = 5-5,6]			
[Proteinosis TGLS = 4-5,6]			
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 262	TRT#: 6	SEX: Female	DAY ON TEST: 594
	DOSE: 0.15 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/R262

ORGAN AND ACCOUNTABLE SITE STATUS

* Ovary [Cyst TGLS = 2-9]		Cyst	
* Pituitary Gland [Adenoma TGLS = 6-14]	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
* Spleen		Pigmentation	Hemosiderin, Mild
* Uterus [Hyperplasia TGLS = 3-9]	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mammary fibroadenoma; Pit. adenoma signif. also

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 263

TRT#: 6

SEX: Female

DAY ON TEST: 620

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R263

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|---------------------------|
| * Adrenal Medulla | * Bone | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Mammary Gland | * Ovary | * Pancreas |
| * Parathyroid Gland | * Salivary Glands | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|-----------------------------|--------------|----------------------------------|----------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Moderate |
| * Bone Marrow | Myeloid Cell | Hyperplasia | Moderate |
| * Brain | Cerebrum | Compression | |
| [Compression TGLS = 3-1] | | | |
| * Clitoral Gland | | Carcinoma | |
| [Carcinoma TGLS = 1-15] | | | |
| * Heart | Atrium | Cardiomyopathy | Minimal |
| | | Thrombosis | |
| * Kidney | | Nephropathy | Mild |
| | Renal Tubule | Pigmentation | Moderate |
| * Liver | | Basophilic Focus | |
| | | Degeneration | Fatty, Mild |
| | | Hematopoietic Cell Proliferation | Mild |
| | Bile Duct | Hyperplasia | Mild |
| | Hepatocyte | Hyperplasia | Moderate |
| [Degeneration TGLS = 2-4] | | | |
| * Lung | Alveolus | Fibrosis | Mild |
| | Interstitium | Hyperplasia | Macrophage, Moderate |
| | | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 263

TRT#: 6

SEX: Female

DAY ON TEST: 620

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R263

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 5-5,6]	Alveolus	Proteinosis	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Nose		Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: reason for EMH undetermined

Animal Note: CO/MSAC=Clitoral gland Ca

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 265

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R265

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 2-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Uterus		Adenoma	
[Adenoma TGLS = 3-16]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 266

TRT#: 8

SEX: Female

DAY ON TEST: 200

DOSE: 0.15 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-R266

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

* Lymph Node, Bronchial

* Nose

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Lung

Alveolus
Interstitialium

Hyperplasia
Infiltration Cellular
Inflammation

Macrophage, Mild
Minimal
Chronic Active, Mild

Alveolus

Proteinosis

Minimal

[Hyperplasia TGLS = 1-3,4]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 267

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R267

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
		Basophilic Focus	
* Liver		Fibrosis	Minimal
Note: fixation artifacts		Hyperplasia	Focal, Mild
* Lung	Alveolar Epith	Hyperplasia	Macrophage, Mild
	Alveolus	Hyperplasia	Lymphoid, Minimal
	Bronchus	Infiltration Cellular	Mild
	Interstitium	Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
[Hyperplasia TGLS = 2-5,6]			
[Hyperplasia TGLS = 2-5,6]			
[Hyperplasia TGLS = 2-5,6]			
[Inflammation TGLS = 3-5,6]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[Adenoma TGLS = 1-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 267

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 0.15 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/R267

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 268

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: RZ116/R268

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitium	Infiltration Cellular	Moderate
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Moderate
[Inflammation TGLS = 1-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Moderate
		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 269

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 695

HISTO: RZ116/R269

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Brain	Cerebrum	Compression	
[Compression TGLS = 4-1]			
* Heart			
Note: fixation artifacts			
* Kidney	Renal Tubule	Nephropathy Pigmentation	Moderate Mild
Note: fixation artifacts			
* Liver		Basophilic Focus Degeneration Inflammation Fibrosis	Fatty, Minimal Granulomatous, Focal, Minimal Mild
* Lung	Alveolus Bronchus Alveolus	Hyperplasia Hyperplasia Inflammation Proteinosis	Macrophage, Mild Lymphoid, Minimal Chronic Active, Mild Moderate
[Fibrosis TGLS = 2-5,6]			
[Proteinosis TGLS = 1-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Cystic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 269

TRT#: 6

SEX: Female

DAY ON TEST: 695

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R269

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 3-14,16]

* Spleen

Pigmentation

Hemosiderin, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary adenoma w/ compression of brain

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 270

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 681

HISTO: RZ116/R270

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Brain	Cerebrum	Compression	
[Compression TGLS = 4-1]			
* Clitoral Gland		Carcinoma	
[Carcinoma TGLS = 1-9,15]			
* Kidney	Renal Tubule	Nephropathy	Marked
		Pigmentation	Moderate
* Liver	Bile Duct	Basophilic Focus	
Note: fixation artifacts		Hyperplasia	Minimal
* Lung	Alveolar Epith	Fibrosis	Moderate
	Alveolus	Hyperplasia	Focal, Moderate
		Hyperplasia	Macrophage, Moderate
	Alveolus	Inflammation	Chronic Active, Mild
[Fibrosis TGLS = 6-5,6]		Proteinosis	Moderate
[Hyperplasia TGLS = 5-5,6]			
[Hyperplasia TGLS = 5-5,6]			
* Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Spleen		Hematopoietic Cell Proliferation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 270

TRT#: 6

SEX: Female

DAY ON TEST: 681

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R270

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Pigmentation

Hemosiderin, Moderate

Adenoma

PRIMARY CAUSE OF DEATH

-

Animal Note: Pit adenoma contributed to clinical condition

Animal Note: CO/MSAC=Clitoral gland Ca

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 272

TRT#: 6

SEX: Female

DAY ON TEST: 609

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R272

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Brain		Astrocytoma Nos	
[Astrocytoma Nos TGLS = 1-1,16]			
* Heart		Schwannoma Nos	
Note: intramural			
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Inflammation	Granulomatous, Focal, Minimal
[Basophilic Focus TGLS = 2-4]			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Moderate
[Fibrosis TGLS = 4-5,6]			
[Proteinosis TGLS = 3-5,6]			
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-15]			
* Spleen		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mammary fibroadenoma

Animal Note: astrocytoma must have contributed to condition

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 272

TRT#: 6

SEX: Female

DAY ON TEST: 609

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R272

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 273

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 678

HISTO: RZ116/R273

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose
* Ovary	* Pancreas	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex [Degeneration TGLS = 5-14]		Degeneration	Cystic, Marked
* Adrenal Medulla		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Mild
* Kidney [Pigmentation TGLS = 6-3]	Renal Tubule	Nephropathy Pigmentation	Marked Mild
* Liver Note: fixation artifacts Note: extent & severity of degeneration is dramatic [Degeneration TGLS = 4-4]		Basophilic Focus Degeneration	Fatty, Marked
* Lung [Hyperplasia TGLS = 8-5,6]	Alveolus Interstitium Alveolus	Fibrosis Hyperplasia Infiltration Cellular Inflammation Proteinosis	Minimal Macrophage, Marked Minimal Chronic Active, Mild Mild
* Lymph Node, Mesenteric [Atrophy TGLS = 2-8]		Atrophy	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 273	TRT#: 6	SEX: Female	DAY ON TEST: 678
	DOSE: 0.15 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/R273

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland [Hyperplasia TGLS = 1-10]		Hyperplasia	Cystic, Mild
* Parathyroid Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin Note: [LIPOMA] TGLs = 9-16	Subcut Tiss	Lipoma	
* Spleen Note: atrophy is focal lesion Note: fixation artifacts [Atrophy TGLS = 3-15]		Atrophy	Mild
Tissue NOS Note: TNOS=subcutis see SKIN			

PRIMARY CAUSE OF DEATH -

Animal Note: cause of hep. degeneration undetermined

Animal Note: many tissues have fixation artifacts

Animal Note: CO/MSAC=Hepatocellular degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 274

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 620

HISTO: RZ116/R274

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Heart			
Note: fixation artifact			
* Kidney	Renal Tubule	Nephropathy Pigmentation Inflammation	Minimal Mild Moderate
* Larynx		Atrophy	Moderate
* Liver	Centrilobular	Degeneration Leukemia Mononuclear	Fatty, Marked
[Degeneration TGLS = 2-4]			
* Lung	Alveolus Interstitium	Fibrosis Hyperplasia Infiltration Cellular Inflammation	Mild Macrophage, Mild Minimal Chronic Active, Mild
[Fibrosis TGLS = 3-5,6]	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Skin	Tail	Inflammation	Moderate
Note: Tail=inflammation w/ necrosis			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 274

TRT#: 6

SEX: Female

DAY ON TEST: 620

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R274

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 1-15]

* Spleen

Leukemia Mononuclear

* Stomach, Forestomach

Hyperplasia

Squamous, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Hepatocellular degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 275

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 566

HISTO: RZ116/S275

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Islets, Pancreatic		Carcinoma	
Note: TGL"duodenum"=islets of pancreas see ISLETS<PANC			
[Carcinoma TGLS = 1-15]			
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Pigmentation	Hemosiderin, Minimal
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Bronchus	Hyperplasia	Lymphoid, Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Moderate
[Fibrosis TGLS = 3-5,6]			
[Proteinosis TGLS = 2-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Parathyroid Gland		Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 275

TRT#: 6

SEX: Female

DAY ON TEST: 566

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S275

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: fixation artifacts in many tissues

Animal Note: CO/MSAC=Islet cell adenoma

Animal Note: func. islet cells may = hepatocellular degeneration

Animal Note: TGL"duodenum"=Islets cell see ISLETS,PANC

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 276

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.15 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/R276

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Adrenal Medulla

OBSERVATIONS

* Liver		Basophilic Focus	
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 1-5]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 277

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 594

HISTO: RZ116/S277

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Brain	Cerebrum	Compression	
	[Compression TGLS = 5-1]		
* Clitoral Gland			
	Note: TGL "clitoral gland" is MAMMARY GLAND		
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Nephropathy	Mild
		Pigmentation	Mild
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung	Alveolus	Fibrosis	Mild
		Hyperplasia	Macrophage, Moderate
	Alveolus	Inflammation	Chronic Active, Moderate
		Proteinosis	Moderate
	Note: TGL "red"=congestion=not signif. lesion		
	[Fibrosis TGLS = 4-5,6]		
	[Hyperplasia TGLS = 3-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Carcinoma	
		Hyperplasia	Cystic, Mild
	Note: Ca best seen on slide 9, has papillary pattern		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 277

TRT#: 6

SEX: Female

DAY ON TEST: 594

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S277

ORGAN AND ACCOUNTABLE SITE STATUS

[Carcinoma TGLS = 1-9,15]

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 6-14]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mammary gland carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 278

TRT#: 6

SEX: Female

DAY ON TEST: 718

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S278

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum	* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
	[Fibrosis TGLS = 3-5,6,15]		
	[Hyperplasia TGLS = 2-5,6,15]		
* Mammary Gland		Carcinoma	
		Hyperplasia	Cystic, Mild
Note: appears to arise from fibroadenoma, see #16			
	[Carcinoma TGLS = 1-16,17]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-14]		
Tissue NOS			
Note: TNOS TGL=Mammary gland N.B.			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 278

TRT#: 6

SEX: Female

DAY ON TEST: 718

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S278

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mammary gland Ca

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 279

TRT#: 6

SEX: Female

DAY ON TEST: 635

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R279

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Bronchial

INSUFFICIENT TISSUE

* Lymph Node, Mandibular * Lymph Node, Mediastinal

OBSERVATIONS

Eye		Cataract	Moderate
	Retina	Degeneration	Marked
[Cataract TGLS = 1-18]			
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
Note: TGL"red"=congestion=not signif lesion			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
Note: focal hyperplasia			
[Eosinophilic Focus TGLS = 2-17,3-16]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Moderate
[Proteinosis TGLS = 5-5,6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 279

TRT#: 6

SEX: Female

DAY ON TEST: 635

DOSE: 0.15 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/R279

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Marked
Spinal Cord		Degeneration	Secondary Wall, Mild
Note: radiculoneuropathy			
* Spleen		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Radiculoneuropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 280

TRT#: 6

DOSE: 0.15 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: RZ116/R280

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Bronchial	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	Hepatocyte	Necrosis	Minimal
	[Leukemia Mononuclear TGLS = 4-4,16]		
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
	[Hyperplasia TGLS = 6-5,6]		
	[Inflammation TGLS = 7-5,6]		
Lymph Node	Pancreatic	Hyperplasia	Lymphoid, Moderate
	[Hyperplasia TGLS = 2-10]		
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
	[Hyperplasia TGLS = 2-10]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:14
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 280	TRT#: 6	SEX: Female	DAY ON TEST: 731
	DOSE: 0.15 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/R280

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal [Hyperplasia TGLS = 2-10]		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric [Hyperplasia TGLS = 2-10]		Hyperplasia	Lymphoid, Moderate
* Mammary Gland [Hyperplasia TGLS = 1-17]		Hyperplasia	Cystic, Mild
* Pituitary Gland [Adenoma TGLS = 8-14]	Pars Distalis	Adenoma	
* Spleen [Leukemia Mononuclear TGLS = 3-3,15]		Leukemia Mononuclear	
Tissue NOS Note: TNOS=Mammary gland			

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:14

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 351

TRT#: 10

SEX: Female

DAY ON TEST: 673

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S351

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Ovary	* Pancreas
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
		Hyperplasia	Focal, Moderate
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-4]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 6-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 5-6]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-2]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-2]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 351

TRT#: 10

SEX: Female

DAY ON TEST: 673

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S351

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 4-2]

* Mammary Gland

Fibroadenoma

[Fibroadenoma TGLS = 1-15]

* Nose

Olfactory Epi

Atrophy

Minimal

* Parathyroid Gland

Hyperplasia

Mild

* Pituitary Gland

Pars Distalis

Hyperplasia

Moderate

[Hyperplasia TGLS = 7-14]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-3]

* Thyroid Gland

C Cell

Hyperplasia

Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

Animal Note: Fixation artifacts on many tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 352

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S352

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone Marrow | * Brain | * Clitoral Gland | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mediastinal |
| * Mammary Gland | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|--------------------------|-----------------|-------------------------|-------------------------------|
| * Adrenal Cortex | | Necrosis | Mild |
| * Adrenal Medulla | Bilateral | Pheochromocytoma Benign | |
| * Bone | | Hyperostosis | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Moderate |
| | Renal Tubule | Pigmentation | Marked |
| * Larynx | | Inflammation | Mild |
| * Liver | | Basophilic Focus | |
| * Lung | | Fibrosis | Minimal |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Interstitialium | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Mild |
| | Alveolus | Proteinosis | Marked |
| | | | [Inflammation TGLS = 3-5,6] |
| | | | [Proteinosis TGLS = 2-5,6] |
| * Lymph Node, Bronchial | | Hyperplasia | Macrophage, Minimal |
| | | Hyperplasia | Lymphoid, Moderate |
| * Lymph Node, Mandibular | | Hyperplasia | Plasma Cell, Mild |
| * Lymph Node, Mesenteric | | Hyperplasia | Macrophage, Mild |
| * Nose | | Inflammation | Chronic Active, Moderate |
| | | | Note: inflammation unilateral |
| * Uterus | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 352

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S352

ORGAN AND ACCOUNTABLE SITE STATUS

Note: TGL"red"=congestion, not signif lesion

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 354

TRT#: 10

SEX: Female

DAY ON TEST: 643

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S354

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Pancreas	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Esophagus			
Note: TGL"mass" lool like wadded-up esophagus			
Note: Wet tissue review 6/25/91 = no mass found			
* Heart		Cardiomyopathy	Minimal
Note: fixation artifacts			
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
		Pigmentation	Marked
* Liver	Renal Tubule	Atrophy	Mild
	Centrilobular	Basophilic Focus	
		Hyperplasia	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Leukemia Mononuclear	
		Pigmentation	Hemosiderin, Mild
[Leukemia Mononuclear TGLS = 4-4]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
Note: extensive proteinosis, minimal other lesions			
[Proteinosis TGLS = 8-5,6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 354

TRT#: 10

SEX: Female

DAY ON TEST: 643

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S354

ORGAN AND ACCOUNTABLE SITE STATUS

Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-2,1-10,9-18]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-2,1-10,9-18]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-2,1-10,9-18]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-2,1-10,9-18]			
* Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Olfactory Epi	Atrophy	Minimal
	Olfactory Epi	Inflammation	Chronic Active, Marked
Note: unilateral inflam. like fore.bdy,but none found		Metaplasia	Moderate
* Ovary		Cyst	
[Cyst TGLS = 2-9]			
* Parathyroid Gland		Hyperplasia	Mild
* Pituitary Gland			
Note: tissue artifacts			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-3]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leuk.+Alveolar Proteinosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 355

TRT#: 10

SEX: Female

DAY ON TEST: 459

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S355

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Bone | * Bone Marrow | * Brain |
| * Clitoral Gland | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney | * Larynx |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland |
| * Ovary | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

OBSERVATIONS

- | | | | |
|-------------------------|----------------------------|-----------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| * Liver | | Basophilic Focus | |
| | | Inflammation | Granulomatous, Mild |
| * Lung | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Bronchus | Hyperplasia | Lymphoid, Minimal |
| | Interstitium | Infiltration Cellular | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | Alveolus | Proteinosis | Marked |
| | [Proteinosis TGLS = 1-5] | | |
| * Lymph Node, Bronchial | | Hyperplasia | Macrophage, Minimal |
| | | Hyperplasia | Lymphoid, Minimal |
| * Nose | | Inflammation | Chronic Active, Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLS = 2-14] | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 356

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S356

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Clitoral Gland		Hyperplasia	Cystic, Moderate
[Hyperplasia TGLS = 1-9]			
* Kidney	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Moderate
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
Note: TGL "foci" difficult to define microscopically			
[Leukemia Mononuclear TGLS = 4-4]			
* Lung	Alveolar Epith	Fibrosis	Mild
	Alveolus	Hyperplasia	Focal, Mild
	Interstitialium	Hyperplasia	Macrophage, Moderate
		Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Hyperplasia TGLS = 6-5,6]			
[Hyperplasia TGLS = 6-5,6]			
[Inflammation TGLS = 7-5,6]			
Lymph Node	Pancreatic	Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 8-6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 356

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S356

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 8-6]		
* Lymph Node, Mediastinal	Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 8-6]		
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 8-6]		
Mesentery	Necrosis	Mild
Note: Fat necrosis but no pancreatic lesion = ??		
[Necrosis TGLS = 3-16]		
* Spleen	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-15]		
Tissue NOS		
Note: TNOS=Mesentery, nb		

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 357

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S357

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
Eye		Cataract	Marked
[Cataract TGLS = 1-15]			
* Kidney	Renal Tubule	Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Mild
* Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Marked
Note: inflam. unilateral assoc. w/ foreign body			
* Ovary		Cyst	
[Cyst TGLS = 2-9]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 357

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S357

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 358

TRT#: 10

SEX: Female

DAY ON TEST: 641

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S358

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Brain	* Clitoral Gland	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone	Cranium	Hyperostosis	Moderate
		Hyperostosis	
Note: femur & turbinate			
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Degeneration	Fatty, Moderate
[Degeneration TGLS = 4-4]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
Note: mets & pleural invasion are sclerosing			
Note: lesion grading from slide 6 = no neoplasia			
Note: Ca has papillary pattern w/ some squamous diff.			
Note: Ca invades bronchi, pleura & arteries {slide5}			
[Alveolar/Bronchiolar Carcinoma TGLS = 8-17,7-16]			
[Proteinosis TGLS = 10-6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:15
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 358	TRT#: 10	SEX: Female	DAY ON TEST: 641
	DOSE: 1.0 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/S358

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 9-6]			
* Lymph Node, Mediastinal		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[Alveolar/Bronchiolar Carcinoma TGLS = 6-2]			
* Ovary		Cystadenoma	
[Cystadenoma TGLS = 3-9]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[Angiectasis TGLS = 11-14]			
* Spleen			
Note: TGL"red foci"=congestion=not sign.lesion			
Tissue NOS	Thoracic	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
Note: invasion of pleural cavity			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Alveolar/Bronchiolar Ca

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 360

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S360

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

INSUFFICIENT TISSUE

* Larynx

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
* Brain	Cerebrum	Compression	
	[Compression TGLS = 4-1]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
Note: fixation artifacts			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
	[Proteinosis TGLS = 2-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 360

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S360

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Moderate

Hyperplasia

Macrophage, Mild

* Mammary Gland

Fibroadenoma

[Fibroadenoma TGLS = 1-15]

* Nose

Olfactory Epi

Atrophy

Minimal

* Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Moderate

[Adenoma TGLS = 3-14]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 361

TRT#: 10

SEX: Female

DAY ON TEST: 635

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S361

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Ovary
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Clitoral Gland		Hyperplasia	Cystic, Moderate
[Hyperplasia TGLS = 1-9]			
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver	Centrilobular	Atrophy	Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Regeneration	Minimal
Note: focal hyperplasia			
[Hyperplasia TGLS = 4-16]			
[Regeneration TGLS = 4-16]			
* Lung		Alveolar/Bronchiolar Carcinoma	Multiple
		Fibrosis	Moderate
	Alveolar Epith	Hyperplasia	Focal, Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 361	TRT#: 10	SEX: Female	DAY ON TEST: 635
	DOSE: 1.0 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/S361

ORGAN AND ACCOUNTABLE SITE STATUS

Alveolus	Inflammation	Chronic Active, Marked
Note: A/B Ca - Left lobe 2 foci=same tumor or multiple??	Proteinosis	Marked
Note: Alv Bron Carc has Squamous Differentiation.		
Note: Lesion grading on slide5, no tumors		
[Alveolar/Bronchiolar Carcinoma TGLS = 9-6,17,18]		
[Fibrosis TGLS = 11-5]		
Lymph Node Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-2,3-19,8-6]		
* Lymph Node, Bronchial	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-2,3-19,8-6]		
* Lymph Node, Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-2,3-19,8-6]		
* Lymph Node, Mesenteric	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-2,3-19,8-6]		
* Mammary Gland	Hyperplasia	Cystic, Mild
* Nose	Atrophy	Minimal
Olfactory Epi	Inflammation	Moderate
Nasolacrim Dct	Inflammation	Chronic Active, Minimal
	Atrophy	Mild
* Pancreas	Hyperplasia	Mild
* Parathyroid Gland	Leukemia Mononuclear	
* Spleen		
[Leukemia Mononuclear TGLS = 2-3,15]		
* Thymus	Leukemia Mononuclear	
* Thyroid Gland	Adenoma	
C Cell		
[Adenoma TGLS = 7-2]		

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Pulmonary Squamous Cell Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 363

TRT#: 10

SEX: Female

DAY ON TEST: 459

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S363

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
	[Proteinosis TGLS = 1-5]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-14]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 364

TRT#: 10

SEX: Female

DAY ON TEST: 602

DOSE: 1.0 MG/M3

DISP: Natural Death

HISTO: RZ116/S364

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Intestine Large, Colon	* Intestine Small, Ileum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Rectum

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
--------------------------	-----------------------------	----------------------------

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Brain	Cerebrum	Compression Hydrocephalus	Mild
	[Compression TGLS = 9-1]		
	[Hydrocephalus TGLS = 10-1]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
* Liver		Degeneration Leukemia Mononuclear	Fatty, Minimal
	[Leukemia Mononuclear TGLS = 2-4]		
* Lung		Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia Inflammation	Lymphoid, Minimal Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
	[Fibrosis TGLS = 6-15]		
	[Hyperplasia TGLS = 5-16]		
	[Hyperplasia TGLS = 5-16]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 364

TRT#: 10

SEX: Female

DAY ON TEST: 602

DOSE: 1.0 MG/M3

DISP: Natural Death

HISTO: RZ116/S364

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 5-16] [Proteinosis TGLS = 7-5,6,15,16]			
* Lymph Node, Bronchial [Hyperplasia TGLS = 4-2]		Hyperplasia	Lymphoid, Marked
* Lymph Node, Mediastinal [Hyperplasia TGLS = 4-2]		Hyperplasia	Lymphoid, Marked
* Nose	Olfactory Epi	Atrophy	Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland [Adenoma TGLS = 8-14]	Pars Distalis	Adenoma	
* Spleen		Leukemia Mononuclear	
* Uterus Note: polyp is hemorrhagic [Polyp Stromal TGLS = 1-17]		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

Animal Note: COD=Pituitary adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 365

TRT#: 10

SEX: Female

DAY ON TEST: 726

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S365

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Clitoral Gland	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Degeneration Hyperplasia	Cystic, Mild Focal, Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Brain	Gray Matter	Necrosis	Moderate
Note: focal and laminar			
* Kidney	Renal Tubule	Nephropathy Pigmentation	Marked Mild
* Liver		Degeneration	Fatty, Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 2-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
* Mammary Gland		Fibroadenoma Hyperplasia	Cystic, Mild
Note: Prolif.epithel.nodules,but none w/ enuf anaplasia for Ca			
[Fibroadenoma TGLS = 1-15]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 365

TRT#: 10

SEX: Female

DAY ON TEST: 726

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S365

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 3-14]

PRIMARY CAUSE OF DEATH -

Animal Note: pneumonia not all that bad

Animal Note: CO/MSAC=Pituitary adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:15
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 366

TRT#: 12

SEX: Female

DAY ON TEST: 200

DOSE: 1.0 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ166-S366

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Marked
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Moderate
	[Hyperplasia TGLS = 3-3,4]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
	[Hyperplasia TGLS = 1-2,2-2]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Marked
	[Hyperplasia TGLS = 1-2,2-2]		
* Nose		Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 367

TRT#: 10

SEX: Female

DAY ON TEST: 633

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ166/S367

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Kidney		Leukemia Mononuclear Nephropathy Pigmentation	Mild Mild
	Renal Tubule		
Note: fixation artifacts			
* Liver	Centrilobular	Atrophy Basophilic Focus Leukemia Mononuclear Pigmentation	Moderate Hemosiderin, Mild
Note: many fixation artifacts			
* Lung	Alveolus Interstitialium	Fibrosis Hyperplasia Infiltration Cellular Inflammation Proteinosis	Minimal Macrophage, Moderate Minimal Chronic Active, Mild Marked
	Alveolus		
[Fibrosis TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia Hyperplasia	Macrophage, Minimal Lymphoid, Moderate
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-8,2-2]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 367

TRT#: 10

SEX: Female

DAY ON TEST: 633

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ166/S367

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 1-8,2-2]	Leukemia Mononuclear	
* Mammary Gland	Hyperplasia	Cystic, Minimal
* Nose	Inflammation	Chronic Active, Minimal
	Thrombosis	Minimal
* Pancreas	Atrophy	Minimal
* Spleen	Leukemia Mononuclear	
* Stomach, Forestomach	Hyperplasia	Squamous, Mild
* Thyroid Gland C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 368

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S368

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Hyperplasia	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
Lacrimal Gland		Metaplasia	Squamous, Moderate
* Liver		Basophilic Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
		Metaplasia	Squamous, Moderate
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 2-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 368

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S368

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Moderate

[Adenoma TGLS = 3-14]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 369

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S369

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

INSUFFICIENT TISSUE

* Larynx

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Brain	Cerebrum	Compression	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
	[Inflammation TGLS = 3-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-15,16]		
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 369

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S369

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 4-14]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 370

TRT#: 10

SEX: Female

DAY ON TEST: 615

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S370

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Brain	Cerebrum	Compression	
		Hydrocephalus	Mild
	[Compression TGLS = 4-1]		
	[Hydrocephalus TGLS = 5-1]		
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Mild
* Liver	Hepatocyte	Atrophy	Moderate
		Basophilic Focus	
		Degeneration	Fatty, Minimal
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
	[Fibrosis TGLS = 2-5,6]		
	[Proteinosis TGLS = 1-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
* Mammary Gland		Hyperplasia	Cystic, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 370

TRT#: 10

SEX: Female

DAY ON TEST: 615

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S370

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 3-14]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Pituitary Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 371

TRT#: 10

SEX: Female

DAY ON TEST: 590

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S371

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
Note: fixation artifacts			
* Liver	Centrilobular	Atrophy	Mild
		Degeneration	Fatty, Moderate
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
		Pigmentation	Hemosiderin, Mild
Note: fixation artifacts			
[Leukemia Mononuclear TGLS = 4-4]			
* Lung		Cyst	Minimal
		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
Note: Cyst is squamous with abundant keratin.			
[Inflammation TGLS = 7-5,6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 371

TRT#: 10

SEX: Female

DAY ON TEST: 590

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S371

ORGAN AND ACCOUNTABLE SITE STATUS

[Proteinosis TGLS = 6-5,6]

Lymph Node Pancreatic

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-2,2-15]

* Lymph Node, Bronchial

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-2,2-15]

* Lymph Node, Mandibular

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-2,2-15]

* Lymph Node, Mediastinal

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-2,2-15]

* Lymph Node, Mesenteric

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 5-2,2-15]

* Mammary Gland

Hyperplasia

Cystic, Minimal

* Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Mild

[Adenoma TGLS = 8-14]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-3]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 372

TRT#: 10

SEX: Female

DAY ON TEST: 538

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S372

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Mild
		Leukemia Mononuclear	
Note: fixation artifacts			
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Marked
		Inflammation	Chronic Active, Mild
	Alveolus	Leukemia Mononuclear	
		Proteinosis	Mild
[Hyperplasia TGLS = 2-5,6]			
[Hyperplasia TGLS = 2-5,6]			
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mediastinal		Leukemia Mononuclear	
* Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Olfactory Epi	Atrophy	Minimal
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 372

TRT#: 10

SEX: Female

DAY ON TEST: 538

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S372

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 373

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S373

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum	* Lymph Node, Bronchial
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OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone	Cranium	Hyperostosis	Mild
		Hyperostosis	
* Brain	Cerebrum	Compression	
		[Compression TGLS = 5-1]	
* Clitoral Gland		Carcinoma	
		[Carcinoma TGLS = 1-15]	
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked

Note: Ca DX based on nonuniform growth pattern,slight atypia

Note: tumor is on slide 17

[Proteinosis TGLS = 3-5,6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 373

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S373

ORGAN AND ACCOUNTABLE SITE STATUS

* Ovary		Inflammation	Moderate
Note: chronic granulomatous asoc. w/ follicles [Inflammation TGLS = 2-9]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[Adenoma TGLS = 4-14]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tissue NOS			
Note: TNOS=Clitoral gland, nb			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 374

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S374

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| * Clitoral Gland | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nose | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|---------------------------|------------------------------|-------------------------|-------------------------------|
| * Adrenal Medulla | Bilateral | Pheochromocytoma Benign | |
| * Kidney | Renal Tubule | Nephropathy | Moderate |
| | | Pigmentation | Mild |
| * Liver | | Inflammation | Granulomatous, Focal, Minimal |
| * Lung | | Fibrosis | Mild |
| | Alveolar Epith | Hyperplasia | Focal, Mild |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Bronchus | Hyperplasia | Lymphoid, Minimal |
| | Interstitium | Infiltration Cellular | Mild |
| | | Inflammation | Chronic Active, Mild |
| | Alveolus | Proteinosis | Marked |
| | [Proteinosis TGLS = 1-5,6] | | |
| * Lymph Node, Bronchial | | Hyperplasia | Macrophage, Minimal |
| | | Hyperplasia | Lymphoid, Moderate |
| * Lymph Node, Mediastinal | | Hyperplasia | Macrophage, Minimal |
| | | Hyperplasia | Lymphoid, Mild |
| * Ovary | | Inflammation | Mild |

Note: chronic granulomatous involving follicles

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 374

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S374

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: a few fixation artifacts on many tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 375

TRT#: 10

SEX: Female

DAY ON TEST: 444

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S375

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
Vagina			

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
		Hepatodiaphragmatic Nodule	
		Inflammation	Granulomatous, Focal, Minimal
Note: fixation artifacts			
	[Hepatodiaphragmatic Nodule TGLS = 4-4]		
* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Mild
	[Hyperplasia TGLS = 7-4]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
	[Hyperplasia TGLS = 5-6]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
	[Hyperplasia TGLS = 9-17]		
* Uterus		Inflammation	Moderate
		Polyp Stromal	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 375

TRT#: 10

SEX: Female

DAY ON TEST: 444

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S375

ORGAN AND ACCOUNTABLE SITE STATUS

Note: review of wet tiss. determined vaginal mass source

Note: TGL"mass"=necrotic debris from inflammation

Note: stromal polyp protrudes into vaginal lumen

[Inflammation TGLS = 2-15]

[Polyp Stromal TGLS = 3-16,1-18]

Vagina

Note: Wet tissue review shows polyp from UTERUS

Note: polyp lining like uterine epithelium

Note: [POLYP] TGLs = 1-18

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=UTERINE STROMAL POLYP

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 376

TRT#: 10

SEX: Female

DAY ON TEST: 634

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S376

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Hyperplasia Vacuolization Cytoplasmic	Focal, Moderate Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Moderate
* Kidney		Nephropathy	Minimal
* Liver		Eosinophilic Focus Inflammation	Granulomatous, Focal, Minimal
Note: outline of adenoma indistinct [Eosinophilic Focus TGLS = 2-15]			
* Lung	Alveolus Interstitium	Hyperplasia Infiltration Cellular Inflammation	Macrophage, Mild Minimal Chronic Active, Minimal
[Proteinosis TGLS = 4-5,6]	Alveolus	Proteinosis	Moderate
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia Hyperplasia	Macrophage, Minimal Moderate
[Hyperplasia TGLS = 5-14]			
* Uterus		Polyp Stromal	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 376

TRT#: 10

SEX: Female

DAY ON TEST: 634

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S376

ORGAN AND ACCOUNTABLE SITE STATUS

Note: polyp hemorrhagic

[Polyp Stromal TGLS = 1-16]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Hemorrhagic Uterine polyp

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 377

TRT#: 10

SEX: Female

DAY ON TEST: 663

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S377

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Bone Marrow		Inflammation	Granulomatous, Focal, Marked
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Marked
	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
		Regeneration	Marked
Note: focal hyperplasia			
[Hyperplasia TGLS = 4-15]			
[Regeneration TGLS = 4-15]			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Minimal
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Fibrosis TGLS = 6-5,6]			
[Proteinosis TGLS = 5-5,6]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 377

TRT#: 10

SEX: Female

DAY ON TEST: 663

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S377

ORGAN AND ACCOUNTABLE SITE STATUS

Lymph Node [Hyperplasia TGLS = 3-8]	Pancreatic	Hyperplasia	Macrophage, Mild
* Lymph Node, Mesenteric [Hyperplasia TGLS = 3-8]		Hyperplasia	Macrophage, Moderate
* Nose	Olfactory Epi	Atrophy	Minimal
* Pancreas		Atrophy	Mild
* Skin [Keratoacanthoma TGLS = 1-15]		Keratoacanthoma	
* Spleen [Leukemia Mononuclear TGLS = 2-3]		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artifacts in many tissues

Animal Note: CO/MSAC=Leukemia & skin tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 378

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S378

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Marked
[Degeneration TGLS = 2-14]			
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Degeneration	Fatty, Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Granulomatous, Focal, Minimal
Note: No 7mm nodule delineated on histo., mere hyperplasia??			
* Lung		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked

Note: Adenoma DX based on regular pattern, no invas.or atypia

Note: tumor on slide5

Note: negative staining of adenoma

[Inflammation TGLS = 4-5,6]

[Proteinosis TGLS = 3-5,6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 378

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S378

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Moderate

* Lymph Node, Mandibular

Hyperplasia

Lymphoid, Mild

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Moderate

* Nose

Hyperplasia

Macrophage, Mild

* Pituitary Gland

Pars Distalis

Inflammation

Chronic Active, Minimal

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:15
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 379	TRT#: 12	SEX: Female	DAY ON TEST: 200
	DOSE: 1.0 LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-S379

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Moderate
	[Hyperplasia TGLS = 1-3,4]		
	[Hyperplasia TGLS = 1-3,4]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 2-2]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 2-2]		
* Nose		Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 380

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S380

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 4-14]		
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
	Renal Tubule	Nephropathy	Mild
	[Leukemia Mononuclear TGLS = 5-16]	Pigmentation	Marked
* Liver		Basophilic Focus	
	Note: fixation artifacts	Leukemia Mononuclear	
* Lung		Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Mild
	Alveolus	Leukemia Mononuclear	
		Proteinosis	Marked
	Note: leukemia complicates grading		
	[Inflammation TGLS = 8-5,6]		
	[Leukemia Mononuclear TGLS = 9-6,12-5,6]		
Lymph Node	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-8,3-17,7-2,6-15,10-6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 380

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S380

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 2-8,3-17,7-2,6-15,10-6]			
* Lymph Node, Bronchial		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8,3-17,7-2,6-15,10-6]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8,3-17,7-2,6-15,10-6]			
* Lymph Node, Mediastinal		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8,3-17,7-2,6-15,10-6]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-8,3-17,7-2,6-15,10-6]			
* Nose		Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
		Leukemia Mononuclear	
[Hyperplasia TGLS = 11-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-3]			
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	
* Uterus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 381

TRT#: 10

SEX: Female

DAY ON TEST: 706

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S381

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Degeneration	Fatty, Mild
* Lung		Fibrosis	Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Fibrosis TGLS = 5-5,6]			
[Inflammation TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Mild
		Hyperplasia	Plasma Cell, Moderate
[Hyperplasia TGLS = 3-6,3-6]			
[Hyperplasia TGLS = 3-6,3-6]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 3-6]			
* Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Mild
Note: assoc. w/ foreign body			
* Ovary		Cyst	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 381

TRT#: 10

SEX: Female

DAY ON TEST: 706

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S381

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLS = 1-9]

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLS = 2-14]

* Spleen

Pigmentation

Hemosiderin, Moderate

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=pituitary tumor

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 382

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S382

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Adrenal Cortex		Necrosis	Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
	[Proteinosis TGLS = 3-5,6]		
* Ovary		Atrophy	Marked
* Pancreas		Atrophy	Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Marked
	[Hyperplasia TGLS = 2-15]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 383

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S383

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal
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OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign Pheochromocytoma Malignant Inflammation	Moderate
Blood Vessel Note: muscular artery, mediastinum, affected			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Marked
* Larynx		Inflammation	Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-4]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 5-5,6]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 383

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S383

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-3]

PRIMARY CAUSE OF DEATH -

Animal Note: Ileum TGL =Congestion, not signif lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 384

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S384

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Kidney	Renal Tubule	Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolus	Fibrosis	Mild
	Bronchus	Hyperplasia	Macrophage, Mild
	Interstitialium	Hyperplasia	Lymphoid, Moderate
	Alveolus	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Mild
		Proteinosis	Marked
[Proteinosis TGLS = 1-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mediastinal		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Atrophy	Minimal
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 385

TRT#: 10

SEX: Female

DAY ON TEST: 459

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S385

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Liver		Basophilic Focus	
		Granuloma	Minimal
		Inflammation	Granulomatous, Minimal
* Lung		Hemorrhage	Acute, Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 1-5]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 386

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S386

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Bone | * Bone Marrow | * Brain |
| * Clitoral Gland | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Mesenteric |
| * Ovary | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Lymph Node, Mediastinal

INSUFFICIENT TISSUE

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|-------------------------|------------------------------|------------------------------|--------------------------|
| * Adrenal Medulla | Bilateral | Pheochromocytoma Benign | |
| * Kidney | | Nephropathy | Marked |
| | Renal Tubule | Pigmentation | Mild |
| * Liver | | Basophilic Focus | |
| | Bile Duct | Hyperplasia | Minimal |
| * Lung | | Alveolar/Bronchiolar Adenoma | |
| | | Fibrosis | Mild |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Interstitialium | Infiltration Cellular | Mild |
| | | Inflammation | Chronic Active, Moderate |
| | Alveolus | Proteinosis | Marked |
| | [Proteinosis TGLS = 3-5,6] | | |
| * Lymph Node, Bronchial | | Hyperplasia | Macrophage, Minimal |
| | | Hyperplasia | Lymphoid, Mild |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLS = 2-16] | | |
| * Nose | | Inflammation | Chronic Active, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 386

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S386

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin

Pinna

Fibrosarcoma

[Fibrosarcoma TGLS = 1-15]

Tissue NOS

Note: TNOS=Mammary gland, nb

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 387

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S387

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|-----------------------------|----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Larynx | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Intestine Large, Rectum

OBSERVATIONS

- | | | | |
|--------------------------------|-----------------|-----------------------|----------------------------|
| * Clitoral Gland | | Adenoma | |
| [Adenoma TGLS = 1-9] | | | |
| * Intestine Small, Ileum | | Hyperplasia | Lymphoid, Mild |
| * Kidney | | Nephropathy | Moderate |
| | Renal Tubule | Pigmentation | Mild |
| * Liver | | Basophilic Focus | |
| | Bile Duct | Hyperplasia | Minimal |
| | | Inflammation | Granulomatous, Focal, Mild |
| * Lung | | Fibrosis | Mild |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Interstitialium | Infiltration Cellular | Mild |
| | | Inflammation | Chronic Active, Mild |
| | Alveolus | Proteinosis | Marked |
| [Inflammation TGLS = 4-5,6] | | | |
| [Proteinosis TGLS = 3-5,6] | | | |
| * Lymph Node, Bronchial | | Hyperplasia | Lymphoid, Moderate |
| | | Hyperplasia | Macrophage, Minimal |
| [Hyperplasia TGLS = 2-6,2-6] | | | |
| [Hyperplasia TGLS = 2-6,2-6] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 387

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S387

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Mild

Hyperplasia

Macrophage, Minimal

[Hyperplasia TGLS = 2-6,2-6]

[Hyperplasia TGLS = 2-6,2-6]

* Pituitary Gland

Pars Distalis

Angiectasis

Moderate

Pars Distalis

Hyperplasia

Moderate

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 388

TRT#: 10

SEX: Female

DAY ON TEST: 622

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S388

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Hyperplasia	Mild
* Kidney	Renal Tubule	Pigmentation	Moderate
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Minimal
		Pigmentation	Hemosiderin, Mild
Note: numerous fixation artifacts			
* Lung	Alveolus	Fibrosis	Mild
	Bronchus	Hyperplasia	Macrophage, Moderate
	Interstitium	Hyperplasia	Lymphoid, Mild
		Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Mild
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 2-2]			
* Mammary Gland		Hyperplasia	Cystic, Mild
* Spleen		Pigmentation	Hemosiderin, Marked

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 388

TRT#: 10

SEX: Female

DAY ON TEST: 622

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S388

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Udetermined

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 389

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S389

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

INSUFFICIENT TISSUE

* Lymph Node, Mediastinal

OBSERVATIONS

* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
	[Inflammation TGLS = 3-5,6]		
	[Proteinosis TGLS = 2-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 1-10,1-10]		
	[Hyperplasia TGLS = 1-10,1-10]		
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
	[Hyperplasia TGLS = 1-10]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 1-10]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 389

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S389

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Pars Distalis

Angiectasis

Moderate

Pars Distalis

Hyperplasia

Moderate

[Hyperplasia TGLS = 4-14]

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 390

TRT#: 10

SEX: Female

DAY ON TEST: 501

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S390

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Bone Marrow		Fibrosis	Minimal
	Myeloid Cell	Hyperplasia	Moderate
* Heart			
Note: fixation artifacts			
* Kidney	Renal Tubule	Pigmentation	Marked
* Liver	Centrilobular	Atrophy	Mild
		Degeneration	Fatty, Minimal
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-4]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Minimal
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Plasma Cell, Moderate
		Hyperplasia	Macrophage, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:15
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 390	TRT#: 10	SEX: Female	DAY ON TEST: 501
	DOSE: 1.0 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/S390

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 4-2,4-2]			
[Hyperplasia TGLS = 4-2,4-2]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 4-2]			
* Nose	Olfactory Epi	Atrophy Inflammation	Minimal Chronic Active, Moderate
Note: inflamm. assoc. w/ foreign body			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-2]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 392

TRT#: 10

SEX: Female

DAY ON TEST: 634

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S392

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Bone	Cranium	Hyperostosis	Moderate
		Hyperostosis	
Note: femur & turbinate			
* Kidney		Nephropathy	Marked
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 1-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Hyperplasia	Macrophage, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Nose		Inflammation	Chronic Active, Mild
Note: inflam. assoc. w/ foreign body			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 392

TRT#: 10

SEX: Female

DAY ON TEST: 634

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S392

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: CO/MSAC=Undetermined,maybe marked alveolar proteinosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 393

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S393

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
	[Pheochromocytoma Benign TGLS = 3-14]		
* Heart		Cardiomyopathy	Mild
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Mild
* Liver		Basophilic Focus	
		Degeneration	Fatty, Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
	[Inflammation TGLS = 5-5,6]		
	[Proteinosis TGLS = 4-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Mild
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 393

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S393

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLS = 1-15,16]

* Nose	Olfactory Epi	Atrophy Inflammation	Minimal Chronic Active, Minimal
* Pancreas		Atrophy	Moderate
* Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
[Adenoma TGLS = 6-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 394

TRT#: 10

SEX: Female

DAY ON TEST: 712

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S394

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Leukemia Mononuclear	
* Lung		Fibrosis	Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
	[Fibrosis TGLS = 6-5,6]		
	[Inflammation TGLS = 5-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Mild
		Hyperplasia	Lymphoid, Moderate
		Inflammation	Mild
	[Hyperplasia TGLS = 3-2,3-2,4-6,4-6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 394

TRT#: 10

SEX: Female

DAY ON TEST: 712

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S394

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 3-2,3-2,4-6,4-6]			
* Lymph Node, Mandibular		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-8]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
[Hyperplasia TGLS = 3-2,4-6]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-8]			
* Nose	Olfactory Epi	Atrophy	Minimal
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-3]			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Leukemia + pneumonia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 395

TRT#: 10

SEX: Female

DAY ON TEST: 526

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S395

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Mammary Gland	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Thyroid Gland	* Trachea		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Bone		Hyperostosis	
Note: femur			
* Heart		Leukemia Mononuclear	
* Islets, Pancreatic		Adenoma	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Moderate
* Liver	Centrilobular	Atrophy	Mild
		Degeneration	Fatty, Mild
		Leukemia Mononuclear	
		Pigmentation	Hemosiderin, Mild
[Leukemia Mononuclear TGLS = 6-4]			
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Mild
Note: massive leukemic cell invasion obscures grading			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 395

TRT#: 10

SEX: Female

DAY ON TEST: 526

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S395

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 9-5,6,11-16]

Lymph Node	Axillary	Leukemia Mononuclear	
	Inguinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	

[Leukemia Mononuclear TGLS = 1-10,3-8,2-17,10-6,8-2,15,4-18]

[Leukemia Mononuclear TGLS = 1-10,3-8,2-17,10-6,8-2,15,4-18]

[Leukemia Mononuclear TGLS = 1-10,3-8,2-17,10-6,8-2,15,4-18]

* Lymph Node, Bronchial Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-10,3-8,2-17,10-6,8-2,15,4-18]

* Lymph Node, Mandibular Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-10,3-8,2-17,10-6,8-2,15,4-18]

* Lymph Node, Mediastinal Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-10,3-8,2-17,10-6,8-2,15,4-18]

* Lymph Node, Mesenteric Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-10,3-8,2-17,10-6,8-2,15,4-18]

* Nose Olfactory Epi Atrophy Minimal

* Pancreas Atrophy Mild

* Pituitary Gland Leukemia Mononuclear

Pars Distalis Angiectasis Moderate

Pars Distalis Hyperplasia Mild

[Angiectasis TGLS = 12-14]

* Spleen Leukemia Mononuclear

* Stomach, Glandular Leukemia Mononuclear

* Thymus Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 7-2,15]

* Urinary Bladder Leukemia Mononuclear

* Uterus Leukemia Mononuclear

PRIMARY CAUSE OF DEATH -

Animal Note: no signs of antemortem rupture of forestomach

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:15
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 396	TRT#: 12	SEX: Female	DAY ON TEST: 200
	DOSE: 1.0 LUNG TOX	DISP: Scheduled Sacrifice	HISTO: RZ116-S396

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney	Liver	* Nose
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OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
[Hyperplasia TGLS = 5-3,4]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 3-2,4-2]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 3-2,4-2]			
Ovary		Cyst	
[Cyst TGLS = 2-7]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 398

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S398

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Ovary
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Minimal
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
	[Inflammation TGLS = 2-5,6]		
	[Proteinosis TGLS = 1-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Minimal
* Pancreas		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 398

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S398

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 3-14]

Pars Distalis

Angiectasis

Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 399

TRT#: 10

DOSE: 1.0 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: RZ116/S399

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Bone		Hyperostosis	
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	Renal Tubule	Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
Note: focal hyperplasia [Eosinophilic Focus TGLS = 2-15]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Marked
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
Note: AL.EP.HYP. w/ fibrosis, inflam., not tumor [Alveolar/Bronchiolar Adenoma TGLS = 4-6] [Hyperplasia TGLS = 4-6] [Inflammation TGLS = 3-5,6,16]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:15
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 399	TRT#: 10	SEX: Female	DAY ON TEST: 730
	DOSE: 1.0 MG/M3	DISP: Terminal Sacrifice	HISTO: RZ116/S399

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Marked
[Fibroadenoma TGLS = 1-17]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Marked
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal
Tissue NOS			
Note: TNOS=Mammary gland ,NB			

PRIMARY CAUSE OF DEATH

-

Animal Note: fixation artifacts on some tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 400

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S400

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Stomach, Glandular
- * Uterus
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Thyroid Gland
- * Clitoral Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Trachea
- * Esophagus
- * Intestine Small, Duodenum
- * Larynx
- * Stomach, Forestomach
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Medulla
 - Bilateral
 - Leukemia Mononuclear
 - Pheochromocytoma Benign
- * Bone Marrow
 - Leukemia Mononuclear
- * Brain
 - Leukemia Mononuclear
- * Heart
 - Cardiomyopathy
- * Kidney
 - Minimal
 - Leukemia Mononuclear
 - Nephropathy
 - Minimal
 - Basophilic Focus
- * Liver
 - Leukemia Mononuclear
- * Lung
 - Alveolus
 - Hyperplasia
 - Inflammation
 - Macrophage, Moderate
 - Chronic Active, Minimal
 - Leukemia Mononuclear
 - Alveolus
 - Metaplasia
 - Squamous, Minimal
 - Proteinosis
 - Marked
- [Leukemia Mononuclear TGLS = 14-5,6]
- [Proteinosis TGLS = 13-5,6]
- Lymph Node
 - Deep Cervical
 - Leukemia Mononuclear
 - Iliac
 - Leukemia Mononuclear
 - Pancreatic
 - Leukemia Mononuclear
 - Renal
 - Leukemia Mononuclear
- [Leukemia Mononuclear TGLS = 6-17,15-2,11-18,4-15,2-10,3-8,7-16,10-6]
- [Leukemia Mononuclear TGLS = 6-17,15-2,11-18,4-15,2-10,3-8,7-16,10-6]
- [Leukemia Mononuclear TGLS = 6-17,15-2,11-18,4-15,2-10,3-8,7-16,10-6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 400

TRT#: 10

DOSE: 1.0 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: RZ116/S400

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 6-17,15-2,11-18,4-15,2-10,3-8,7-16,10-6]	
* Lymph Node, Bronchial	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 6-17,15-2,11-18,4-15,2-10,7-16,10-6,3-8]	
* Lymph Node, Mandibular	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 6-17,15-2,11-18,4-15,2-10,3-8,7-16,10-6]	
* Lymph Node, Mediastinal	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 6-17,15-2,11-18,4-15,2-10,3-8,7-16,10-6]	
* Lymph Node, Mesenteric	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 6-17,15-2,11-18,4-15,2-10,3-8,7-16,10-6]	
* Mammary Gland	Fibroadenoma
[Fibroadenoma TGLS = 1-19]	
* Nose	Leukemia Mononuclear
* Ovary	Leukemia Mononuclear
* Parathyroid Gland	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 9-2]	
* Pituitary Gland	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 12-14]	
* Spleen	Leukemia Mononuclear
Note: MCL DX based on cytology, spleen involvement	
Note: MCL infiltrates not typical, very nodular	
[Leukemia Mononuclear TGLS = 5-3]	
* Thymus	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 8-2]	
Tissue NOS	
Note: TNOS=Mammary Gland, NB	

PRIMARY CAUSE OF DEATH -

Animal Note: Mono. Cell Leuk. DX based on cytology & spleen involv.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 401

TRT#: 10

SEX: Female

DAY ON TEST: 709

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S401

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Brain | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Mammary Gland | * Ovary | * Pancreas |
| * Parathyroid Gland | * Salivary Glands | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

OBSERVATIONS

- | | | | |
|------------------------------|-----------------|-------------------------|----------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Moderate |
| * Adrenal Medulla | Bilateral | Pheochromocytoma Benign | |
| * Bone | | Hyperostosis | |
| Note: femur | | | |
| * Bone Marrow | | Fibrosis | Moderate |
| * Clitoral Gland | | Carcinoma | |
| [Carcinoma TGLS = 1-9] | | | |
| * Kidney | | Nephropathy | Minimal |
| | Renal Tubule | Pigmentation | Moderate |
| [Pigmentation TGLS = 6-3] | | | |
| * Liver | Centrilobular | Atrophy | Mild |
| | | Basophilic Focus | |
| | | Leukemia Mononuclear | |
| | | Pigmentation | Hemosiderin, Mild |
| * Lung | | Fibrosis | Mild |
| | Alveolus | Hyperplasia | Macrophage, Mild |
| | Interstitialium | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Mild |
| | Alveolus | Proteinosis | Marked |
| [Fibrosis TGLS = 5-5,6] | | | |
| [Proteinosis TGLS = 4-5,6] | | | |
| * Lymph Node, Bronchial | | Hyperplasia | Lymphoid, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 401

TRT#: 10

SEX: Female

DAY ON TEST: 709

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S401

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 3-6]

* Lymph Node, Mesenteric

* Nose

* Pituitary Gland

* Skin

Olfactory Epi

Pars Distalis

Leukemia Mononuclear

Atrophy

Hyperplasia

Inflammation

Ulcer

Minimal

Marked

Mild

Moderate

[Inflammation TGLS = 8-16]

[Ulcer TGLS = 7-15]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-3]

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Clitoral gland Ca

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 402

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S402

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Moderate
	Alveolar Epith	Hyperplasia	Focal, Moderate
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Marked
	Alveolus	Proteinosis	Marked
Note: AdDX based on papillary pattern, regular epithelium [Inflammation TGLS = 1-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Mild
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 402

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S402

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 403

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S403

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Minimal
* Intestine Large, Cecum		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Marked
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-4]		
* Lung		Fibrosis	Marked
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
	Note: TGL"nodule=focal fibrosis,see slides5,6 for progression		
	[Fibrosis TGLS = 3-15]		
	[Inflammation TGLS = 4-5,6,15]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Chronic Active, Mild
* Ovary		Cyst	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 403

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S403

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLS = 1-9]

* Pancreas

Atrophy

Mild

* Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Moderate

[Adenoma TGLS = 5-14]

* Spleen

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 404

TRT#: 10

SEX: Female

DAY ON TEST: 641

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S404

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Thymus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Marked
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Granulomatous, Focal, Minimal
[Hepatodiaphragmatic Nodule TGLS = 2-15]			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
	Alveolus	Proteinosis	Marked
[Fibrosis TGLS = 5-5,6]			
[Proteinosis TGLS = 4-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Hyperplasia	Macrophage, Minimal
[Hyperplasia TGLS = 3-8,3-8]			
[Hyperplasia TGLS = 3-8,3-8]			
* Lymph Node, Mesenteric		Hyperplasia	Macrophage, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 404

TRT#: 10

SEX: Female

DAY ON TEST: 641

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S404

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 3-8]

* Mammary Gland

Fibroadenoma

[Fibroadenoma TGLS = 1-16]

* Nose

Olfactory Epi

Atrophy

Minimal

* Pituitary Gland

Pars Distalis

Hyperplasia

Moderate

Tissue NOS

Note: TGL "mass" is mammary gland

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=mammary fibroadenoma

Animal Note: fixation artifacts in tissues

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 405

TRT#: 10

SEX: Female

DAY ON TEST: 459

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S405

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx | * Lymph Node, Bronchial |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- | | |
|---------------------------|----------|
| * Intestine Large, Rectum | * Thymus |
|---------------------------|----------|

OBSERVATIONS

- | | | | |
|-----------------|---|-----------------------|-------------------------|
| * Kidney | | Nephropathy | Minimal |
| * Liver | | Basophilic Focus | |
| | | Inflammation | Granulomatous, Minimal |
| * Lung | | Hemorrhage | Acute, Minimal |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Interstitialium | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | Alveolus | Proteinosis | Marked |
| | [Proteinosis TGLS = 2-5] | | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Vagina | | Polyp | |
| | Note: VAGINAL EPITH.HYPERPLASTIC | | |
| | Note: POLYP RESEMBLES UTERINE STROMAL POLYP | | |
| | [Polyp TGLS = 1-15] | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 406

TRT#: 10

SEX: Female

DAY ON TEST: 459

DOSE: 1.0 MG/M3

DISP: Scheduled Sacrifice

HISTO: RZ116/S406

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

Eye		Cataract	Moderate
[Cataract TGLS = 1-16]			
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Minimal
* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 3-5]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Macrophage, Minimal
* Nose	Olfactory Epi	Atrophy	Minimal
		Inflammation	Chronic Active, Minimal
* Uterus		Sarcoma Stromal	
[Sarcoma Stromal TGLS = 2-15]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 407

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
* Clitoral Gland		Carcinoma	
[Carcinoma TGLS = 1-9,15]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
* Lung		Emphysema	Mild
		Fibrosis	Mild
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 2-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Minimal
		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Atrophy	Minimal
		Inflammation	Chronic Active, Minimal
* Pancreas		Atrophy	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 407

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S407

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 408

TRT#: 10

SEX: Female

DAY ON TEST: 281

DOSE: 1.0 MG/M3

DISP: Accidentally Killed

HISTO: RZ116/S408

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx |
| * Liver | * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric | * Mammary Gland | * Ovary | * Pancreas |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Trachea |
| * Urinary Bladder | * Uterus | | |

MISSING

- * Parathyroid Gland

INSUFFICIENT TISSUE

- * Thyroid Gland

OBSERVATIONS

- | | | | |
|----------|------------------------------|-----------------------|-------------------------|
| * Kidney | | Nephropathy | Minimal |
| * Lung | Alveolus | Hyperplasia | Macrophage, Mild |
| | Interstitialium | Infiltration Cellular | Minimal |
| | Alveolus | Proteinosis | Marked |
| | [Proteinosis TGLS = 5-5,6] | | |
| * Nose | | Inflammation | Chronic Active, Minimal |

PRIMARY CAUSE OF DEATH

-

Animal Note: no lesions to help explain "accid.death" note

Animal Note: C0/MSAC=undetermined

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 409

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone | * Bone Marrow | * Brain | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|-------------------------------|-----------------|---------------------------|----------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Moderate |
| * Adrenal Medulla | Bilateral | Pheochromocytoma Benign | |
| * Clitoral Gland | | Hyperplasia | Cystic, Marked |
| [Hyperplasia TGLS = 1-9] | | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Mild |
| | Renal Tubule | Pigmentation | Mild |
| * Liver | | Basophilic Focus | |
| * Lung | | Fibrosis | Mild |
| | Alveolus | Hyperplasia | Macrophage, Mild |
| | Interstitialium | Infiltration Cellular | Minimal |
| | | Inflammation | Chronic Active, Mild |
| | Alveolus | Proteinosis | Marked |
| [Inflammation TGLS = 3-5,6] | | | |
| * Lymph Node, Mediastinal | | Hyperplasia | Lymphoid, Moderate |
| * Ovary | | | |

Note: TGL "Enlarged"=multiple corpora lutea=not a lesion

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 411

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S411

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

INSUFFICIENT TISSUE

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
* Clitoral Gland		Hyperplasia	Cystic, Mild
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Mild
* Larynx		Inflammation	Mild
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
* Lung		Fibrosis	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
[Proteinosis TGLS = 1-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 411

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S411

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Mild

* Pituitary Gland

Pars Distalis

Angiectasis

Moderate

Pars Distalis

Hyperplasia

Mild

[Angiectasis TGLS = 2-14]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 412

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S412

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Uterus	

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Nephropathy	Marked
	Renal Tubule	Pigmentation	Marked
* Liver	Centrilobular	Atrophy	Minimal
		Basophilic Focus	
* Lung		Leukemia Mononuclear	
		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Focal, Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 6-5,6]			
[Proteinosis TGLS = 5-5,6]			
* Lymph Node, Mandibular		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 412

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S412

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 3-10]

* Mammary Gland

Hyperplasia

Cystic, Moderate

* Nose

Olfactory Epi

Atrophy

Minimal

Inflammation

Chronic Active, Marked

Note: inflam. assoc.w/ foreign body

* Ovary

Cyst

Leukemia Mononuclear

[Cyst TGLS = 4-9]

* Pancreas

Atrophy

Mild

* Pituitary Gland

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 7-14]

* Spleen

Fibrosis

Moderate

Leukemia Mononuclear

[Fibrosis TGLS = 2-16]

[Leukemia Mononuclear TGLS = 1-3,15,16]

* Thyroid Gland

C Cell

Hyperplasia

Marked

* Urinary Bladder

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Nickel subsulfide
CAS Number: 12035-72-2

Date Report Requested: 10/16/2014
Time Report Requested: 07:03:15
First Dose M/F: NA / NA
Lab: LITRI

ANIMAL ID: 414

TRT#: 12

SEX: Female

DAY ON TEST: 200

DOSE: 1.0 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-S414

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Mild
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
	[Hyperplasia TGLS = 3-3,4]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 2-2,1-2]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLS = 2-2,1-2]		
* Nose		Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 415

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S415

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
* Adrenal Medulla		Hyperplasia	Mild
* Clitoral Gland		Hyperplasia	Cystic, Moderate
[Hyperplasia TGLS = 1-9]			
* Kidney	Renal Tubule	Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Basophilic Focus	
		Inflammation	Granulomatous, Focal, Mild
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Mild
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
[Inflammation TGLS = 3-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Macrophage, Mild
		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 416

TRT#: 10

SEX: Female

DAY ON TEST: 563

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Clitoral Gland	* Intestine Large, Rectum
------------------	---------------------------

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
		Hyperplasia	Focal, Mild
* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Bone Marrow		Fibrosis	Mild
		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Mild
* Liver	Centrilobular	Atrophy	Mild
		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Pigmentation	Hemosiderin, Moderate
	Vein	Thrombosis	
Note: fixation artifacts			
[Leukemia Mononuclear TGLS = 4,5-4,17,18]			
[Thrombosis TGLS = 6-17]			
* Lung		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitium	Infiltration Cellular	Minimal
		Inflammation	Chronic Active, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 416	TRT#: 10	SEX: Female	DAY ON TEST: 563
	DOSE: 1.0 MG/M3	DISP: Moribund Sacrifice	HISTO: RZ116/S416

ORGAN AND ACCOUNTABLE SITE STATUS

Alveolus	Proteinosis	Marked
[Fibrosis TGLS = 14-5,6]		
[Proteinosis TGLS = 13-5,6]		
Lymph Node Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-7,19,12-6,10-2,7-8]		
* Lymph Node, Bronchial	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-7,19,12-6,10-2,7-8]		
* Lymph Node, Mandibular	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-7,19,12-6,10-2,7-8]		
* Lymph Node, Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-7,19,12-6,10-2,7-8]		
* Lymph Node, Mesenteric	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-7,19,12-6,10-2,7-8]		
* Mammary Gland	Hyperplasia	Cystic, Mild
* Nose Nasolacrim Dct	Inflammation	Moderate
* Pancreas	Atrophy	Moderate
	Leukemia Mononuclear	
* Pituitary Gland Pars Distalis	Adenoma	
	Leukemia Mononuclear	
[Adenoma TGLS = 16-14]		
[Leukemia Mononuclear TGLS = 15-14]		
* Spleen	Fibrosis	Moderate
	Leukemia Mononuclear	
[Fibrosis TGLS = 1-16]		
[Leukemia Mononuclear TGLS = 2-3,16]		
* Thymus	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 11-2]		

PRIMARY CAUSE OF DEATH -

Animal Note: Iliac In missed on slide,MCL cells in tissues

Animal Note: CO/MSAC=Mononuclear cell leukemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 417

TRT#: 10

SEX: Female

DAY ON TEST: 594

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S417

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Ovary	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Adrenal Medulla		Hyperplasia	Mild
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Marked
* Liver	Centrilobular	Atrophy	Moderate
		Basophilic Focus	
		Degeneration	Fatty, Mild
		Leukemia Mononuclear	
[Atrophy TGLS = 4-4]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Fibrosis	Mild
	Alveolus	Hyperplasia	Macrophage, Moderate
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Moderate
	Alveolus	Proteinosis	Marked
Note: AdDX=focal adenosquam prolif w/ min.alveolar distort.			
Note: 0.5mm alveolar pattern			
Note: AdDX is problematical			
Note: Alv Bron Aden has Squamous Differentiation			
Note: many small foci of hyperplasia w/ atypia			
[Proteinosis TGLS = 5-5,6]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 417

TRT#: 10

DOSE: 1.0 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 594

HISTO: RZ116/S417

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal

Hyperplasia

Lymphoid, Mild

* Mammary Gland

Fibroadenoma

Note: TNOS is mammary tissue

[Fibroadenoma TGLS = 1,2-15,16]

* Nose

Inflammation

Chronic Active, Moderate

Note: goblet cell metaplasia assoc w/ inflam.

Note: inflamm. assoc w/ foreign body

* Pancreas

Atrophy

Moderate

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 3-3]

Tissue NOS

Note: TNOS is mammary tissue

PRIMARY CAUSE OF DEATH -

Animal Note: CO/MSAC=Mammary fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 418

TRT#: 10

SEX: Female

DAY ON TEST: 582

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S418

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|--------------------------|-----------------------------|
| * Bone | * Brain | * Clitoral Gland | * Esophagus |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Nose | * Parathyroid Gland |
| * Salivary Glands | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Trachea | * Urinary Bladder | * Uterus | |

MISSING

- * Intestine Large, Rectum

OBSERVATIONS

- | | | | |
|-------------------|--|-------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Focal, Mild |
| * Adrenal Medulla | | Histiocytic Sarcoma | |
| | | Hyperplasia | Mild |
| | | Pheochromocytoma Benign | |
| * Bone Marrow | | Histiocytic Sarcoma | |
| | | Necrosis | Marked |
| * Kidney | | Histiocytic Sarcoma | |
| | | Hydronephrosis | Moderate |
| | | Nephropathy | Minimal |
| | Renal Tubule | Pigmentation | Marked |
| | [Hydronephrosis TGLS = 8-3,15] | | |
| * Liver | | Histiocytic Sarcoma | |
| | Note: fixation artifacts | | |
| | [Histiocytic Sarcoma TGLS = 5-17,6-18,19,7-18,19,17-20] | | |
| * Lung | | Histiocytic Sarcoma | |
| | Alveolus | Hyperplasia | Macrophage, Moderate |
| | Alveolus | Proteinosis | Moderate |
| | Note: lesion grading affected by histiocytic sarcorma infil. | | |
| | Note: massive hist.sarc involvement, invades vessels | | |
| | [Histiocytic Sarcoma TGLS = 12-22,13-21,14-5,6] | | |
| Lymph Node | Iliac | Histiocytic Sarcoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 418

TRT#: 10

SEX: Female

DAY ON TEST: 582

DOSE: 1.0 MG/M3

DISP: Moribund Sacrifice

HISTO: RZ116/S418

ORGAN AND ACCOUNTABLE SITE STATUS

Renal		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 10-24,11-2,9-25,15-6]			
[Histiocytic Sarcoma TGLS = 10-24,11-2,9-25,15-6]			
* Lymph Node, Bronchial		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 10-24,11-2,9-25,15-6]			
* Lymph Node, Mediastinal		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 10-24,11-2,9-25,15-6]			
* Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 4-23]			
* Ovary		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 2-10]			
* Pancreas		Histiocytic Sarcoma	
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 1-26]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Histiocytic Sarcoma	
Note: Hist, sarc @ hilus, not in parenchyma of spleen			
[Histiocytic Sarcoma TGLS = 2-16]			
* Thyroid Gland	C Cell	Hyperplasia	Moderate
Tissue NOS			
Note: TNOS is SKIN of foot, see SKIN			

PRIMARY CAUSE OF DEATH

-

Animal Note: CO/MSAC=Histiocytic sarcoma, widespread

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 419

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S419

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Nose
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
* Kidney		Nephropathy	Moderate
	Renal Tubule	Pigmentation	Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Leukemia Mononuclear	
	[Eosinophilic Focus TGLS = 2,3-15,18]		
* Lung		Fibrosis	Moderate
	Alveolus	Hyperplasia	Macrophage, Marked
	Bronchus	Hyperplasia	Lymphoid, Mild
	Interstitium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Marked
	Alveolus	Proteinosis	Moderate
	[Inflammation TGLS = 6-5,6]		
	[Proteinosis TGLS = 5-5,6]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
	[Hyperplasia TGLS = 7-6]		
* Lymph Node, Mandibular		Hyperplasia	Plasma Cell, Moderate
	[Hyperplasia TGLS = 7-6]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 419

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 1.0 MG/M3

DISP: Terminal Sacrifice

HISTO: RZ116/S419

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal [Hyperplasia TGLS = 7-6]		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric [Hyperplasia TGLS = 7-6]		Hyperplasia	Lymphoid, Mild
* Ovary [Cyst TGLS = 1-9]		Cyst	
* Pancreas		Atrophy	Moderate
* Pituitary Gland [Adenoma TGLS = 8-14]	Pars Distalis	Adenoma	
* Spleen [Leukemia Mononuclear TGLS = 4-17]		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 05107-05

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel subsulfide

CAS Number: 12035-72-2

Date Report Requested: 10/16/2014

Time Report Requested: 07:03:15

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 420

TRT#: 12

SEX: Female

DAY ON TEST: 200

DOSE: 1.0 LUNG TOX

DISP: Scheduled Sacrifice

HISTO: RZ116-S420

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Kidney

OBSERVATIONS

* Lung	Alveolus	Hyperplasia	Macrophage, Moderate
	Bronchus	Hyperplasia	Lymphoid, Minimal
	Interstitialium	Infiltration Cellular	Mild
		Inflammation	Chronic Active, Minimal
	Alveolus	Proteinosis	Marked
[Hyperplasia TGLS = 3-3,4]			
[Hyperplasia TGLS = 3-3,4]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 1-2,2-2]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 1-2,2-2]			
* Nose		Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

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** END OF REPORT **

* PROTOCOL REQUIRED TISSUE