



**California Animal Health & Food Safety Laboratory System**

105 W. Central Avenue  
 San Bernardino, CA  
 92408-2113

**Preliminary**  
 Version 2

**CAHFS Case #:** S0711436  
**Referral #:**  
**Case Coordinator:** Kinde, Hailu  
**Date Received:** 10/25/2007  
**Date Collected:**

Preliminary report sent by: Kinde, Hailu on 10/31/2007 6:12:36PM

This report supersedes all previous reports for this Case.

**Mail To:**  
 HORN, RICK/PATI  
 36215 AVENIDA MANANA  
 MURRIETA, CA 92563

**Contacts:**

Role	Full Name	Phone	Address
Submitter	THACHER, JOANNE	760-723-7747	1706 RAINBOW VALLEY BLVD FALLBROOK, CA 92028
Owner	HORN, RICK/PATI	951-679-7795	35215 AVENIDA MANANA MURRIETA, CA 92563

**Collection Site:**

HORN, RICK/PATI  
 35215 AVENIDA MANANA  
 MURRIETA, CA 92563

**Specimens Received:** 1. Carcass;

**Specimen Details:**

ID	ID Type	Taxonomy	Gender	Age
S0711436-01	CAHFS Internal ID	Alpaca	Female	9 Days

**Laboratory Findings/Diagnosis**

History of respiratory distress becoming worse after the fires in a 9 day old cria, with:

**Gross Findings:**

- Diffuse red uncollapsed lungs with thick fibrinous plugs in bronchi, trachea and turbinates

**Microscopic Findings:**

Interstitial pneumonia, diffuse, pleocellular

Hepatitis, suppurative, multifocal with rare intralosomal coccal bacteria.

**Other laboratory test results:**

Negative for BVD by PCR

Negative for BVD, BRSV, IBR and PI3 by FA

No remarkable bacterial pathogen was isolated

Pending: Heavy metal analysis.

Vitamin E/Se levels.

**Case Summary**

10-26-07: The gross necropsy examination showed marked, diffusely red uncollapsed lungs with thick fibrinous plugs in the bronchi and trachea. Complete respiratory work up to include bacteriology, virology and histopathology is underway to determine respiratory pathogen (s). We have collected extensive array of tissues in case we need to perform extra diagnostic work. Results shall be sent out as they become available.

10-31-2007: The microscopic examination of tissues revealed subacute, diffuse interstitial pneumonia marked by pleocellular cells. There was also acute hepatitis, multifocal with rare coccal bacterial organisms suggesting septicemia. Bacteriology revealed mixed flora and no remarkable pathogen isolated. Perhaps the animal was on antibiotics and hence this explains the inability to culture the pathogen. Tests for BVD, BRSV, PI3 by FA and PCR (BVD) were negative. Heavy metal analysis are still pending.

**Clinical History**

Brought in for evacuated ranch. 1 alpaca attended show at Monterey, about 25 ill with heavy nasal discharge, including crias dam. 2 progressed to pneumonia, including dam. Respiratory distress prior to fires, progressively worse.

**Gross Observations**

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Necropsy of a 8.9 kg female alpaca began at 4:00 p.m. on October 25, 2007.

Externally, the carcass was unremarkable. The animal was in fair state of nutrition and tissues were in good postmortem preservation. The stomach compartments contained a pale brownish ingesta. The contents of the small and large intestines were normal. The liver, kidneys, adrenals, heart, thymus and spleen were normal. The lungs were not collapsed and diffusely red. The trachea and bronchi contained a thick fibrinous exudate/plug. The sinus turbinates also contained more of the same. The brain showed mild menigeal edema.

### Bacteriology

#### BACTERIAL AEROBIC CULTURE

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	1	Liver Tissue	29-Oct-2007	Mixed flora Sm#	
S0711436-01	1	Lung Tissue	29-Oct-2007	No growth after 48 hours	
S0711436-01	1	Tracheal exudate swab	29-Oct-2007	Mixed flora Lg#	

#### DIAGNOSTIC MYCOPLASMA CULTURE

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	1	Lung Tissue	Pending		
S0711436-01	1	Tracheal exudate swab	Pending		

#### SALMONELLA CULTURE - MAMMALIAN

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	1	Liver Tissue	29-Oct-2007	No Salmonella detected	
S0711436-01	1	Colon Contents	29-Oct-2007	No Salmonella detected	

### Biotechnology

#### BVD QRT PCR

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	1	Lung Tissue	Pending		

### Histology

The following tissues were examined histologically: liver, spleen, trachea, kidney, heart, lung (four sections), trachea, small intestines, colon and stomach. Lesions found:

The lungs showed diffuse congestion with marked pleocellular infiltrates consisted of mostly neutrophils and few lymphocytes and macrophages. The alveoli contained pink fluid with mild fibrin deposition (vascular leakage). The trachea had mucofibrinous exudate with predominantly neutrophils and rare number of bacterial cocci. The liver was also markedly congested and contained multifocal necrotic areas few cocci bacteria and neutrophilic leukocytes within the necrotic regions. The rest of the tissues were unremarkable.

#### SPECIAL STAIN (COMPLEX)

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	Blk#3 Steiner	Tissue Block	31-Oct-2007	Done	

### Toxicology

#### SELENIUM - TISSUE/OTHER

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	1	Liver Tissue	Pending		

#### VITAMIN E

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	1	Liver Tissue	Pending		RL=1ppm

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**HEAVY METAL SCREEN**

Animal/Source	Specimen	Specimen Type	Date Tested			
S0711436-01	1	Liver Tissue				
Analyte		Result	Units	Rep. Limit	Comments	
Arsenic		Pending				
Cadmium		Pending				
Copper		Pending				
Iron		Pending				
Lead		Pending				
Manganese		Pending				
Mercury		Pending				
Molybdenum		Pending				
Zinc		Pending				

**Virology****BOVINE HERPES VIRUS 1 (IBR) - FA**

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	Frozen Lung Tissue	Lung Tissue	29-Oct-2007	Negative	

**BOVINE RESPIRATORY SYNCYTIAL VIRUS - FA (BRV)**

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	Frozen Lung Tissue	Lung Tissue	29-Oct-2007	Negative	

**BOVINE VIRAL DIARRHEA VIRUS - FA (BVD)**

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	Frozen Lung Tissue	Lung Tissue	29-Oct-2007	Negative	

**PARAINFLUENZA VIRUS 3 - FA**

Animal/Source	Specimen	Specimen Type	Date Tested	Result	Comments
S0711436-01	Frozen Lung Tissue	Lung Tissue	29-Oct-2007	Negative	



California Animal Health & Food Safety Laboratory System

105 W. Central Avenue  
 San Bernardino, CA  
 92408-2113(909) 383-4287

Preliminary - Fee Estimate  
 Version 2.00

CAHFS Case #: S0711436  
 Referral #:  
 Case Coordinator: Kinde, Haitu  
 Date Received: October 25, 2007

10/31/2007 8:12:38PM

This report supersedes all previous reports for this Case.

Contacts:

Role	Full Name	Phone	Address
Submitter	THACHER, JOANNE		1706 RAINBOW VALLEY BLVD FALLBROOK CA 92028
COLLECTION SITE: HORN, RICK/PATI 35215 AVENIDA MANANA MURRIETA CA 92563 County: Riverside			

Specimens Received: 1, Carcass;

**Note**  
 NOTICE: This Fee Estimate is based on the tests assigned to date. Your final cost may differ. You will receive a final Fee Estimate with your Final Report if there is any difference in charges. Please call the CAHFS Business Office (1-800-553-6878) for more information. For out of state clients call (530)-752-4613.

Total amount from previous estimates: 75.00

Current Charges:

Item	Note	Qty	Units	Base Price	Actual Price
VITAMIN E	Included in Necropsy Cap	1	1	\$27.50	\$0.00
HEAVY METAL SCREEN	Included in Necropsy Cap	1	1	\$25.00	\$0.00
SELENIUM - TISSUE/OTHER	Included in Necropsy Cap	1	1	\$18.70	\$0.00
BOVINE HERPES VIRUS 1 (IBR) - FA	Included in Necropsy Cap	1	1	\$8.80	\$0.00
BOVINE RESPIRATORY SYNCYTIAL VIRUS	Included in Necropsy Cap	1	1	\$8.80	\$0.00
BOVINE VIRAL DIARRHEA VIRUS - FA (B)	Included in Necropsy Cap	1	1	\$8.80	\$0.00
PARAINFLUENZA VIRUS 3 - FA	Included in Necropsy Cap	1	1	\$8.80	\$0.00
BACTERIAL AEROBIC CULTURE	Included in Necropsy Cap	1	1	\$25.00	\$0.00
DIAGNOSTIC MYCOPLASMA CULTURE	Included in Necropsy Cap	2	1	\$11.90	\$0.00
BVD QRT PCR	Included in Necropsy Cap	1	1	\$33.00	\$0.00
SPECIAL STAIN (COMPLEX)	Included in Necropsy Cap	1	1	\$18.85	\$0.00
<b>Total for this Report:</b>					<b>\$0.00</b>
<b>Total for Case:</b>					<b>\$75.00</b>