

# Thermal Imaging Report

## leRoy



*Thermal Imaging completed by  
a Certified Thermographer  
Authorized with the EquineIR™  
Network.*



*Interpretative results  
completed by Licensed  
Veterinarians in contract with  
Integrated Equine Infrared.*

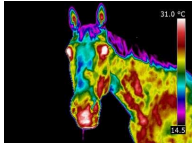


***Southern Ontario Equine Thermography  
Horse and Saddle Scans***

PH: 905-503-0549

[www.southernontarioequinethermography.com](http://www.southernontarioequinethermography.com)

[southernontarioequinethermography@gmail.com](mailto:southernontarioequinethermography@gmail.com)



**PATIENT:** leRoy

**THERMOGRAPHY DATE:** November 29, 2014

**IMAGING TIME:** 3:50

December 5, 2014

Dan Harnett  
380 Woburn Ave  
Toronto, Ontario M5M 1L5

Dear Dan Harnett:

Southern Ontario Equine Thermography was recently requested to perform a full body thermal imaging scan of: **leRoy**

The following photo report was completed by your EquineIR™ Certified Thermographer and all interpretative results were channeled through interpretir.com and subsequently formulated and input by a licensed veterinary team member with Integrated Equine Infrared.

The interpretation is intended to aid your state-licensed veterinarian in providing a diagnostic or treatment protocol. All follow-up testing and treatments should be conducted and administered by your primary veterinarian. The interpretation provided is based solely on the conditions at the time of survey and the thermal images included in this report. Thermography is a diagnostic tool that measures heat emitted from the surface of the patient. The thermal imaging camera converts infrared energy into a visible image. Emitted heat is related to circulation; as such, the thermal camera can help detect areas of inflammation as well as decreased circulation. Thermal symmetry is key, so you compare one anatomic area with the same area on the other side. The EquineIR™ report is prepared in this manner. It should be understood that correct patient preparation and environment are vital to a successful survey. Your EquineIR™ technician is also a Certified Infrared Thermographer and has been trained in the proper use and the proven techniques of thermal imaging as it is used with horses. There are however certain situations which may reduce the quality of the survey including the improper preparation of the horse prior to technician's arrival. The interpreting veterinarians who review the imagery base their findings and recommendations on information provided, so it is critical that proper care be taken in the preparation process to ensure success.

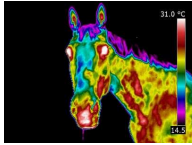
Thermal imaging is a physiologic modality and should not be relied upon as the sole diagnostic tool. A complete clinical examination by your state-licensed veterinarian is always recommended for the best diagnosis and follow-up treatment. This Report is not a definitive diagnosis of any illness or disease. It is intended for use only by licensed veterinary professionals to evaluate patient health, diagnose medical conditions, and provide treatment. It is not to be used by individuals for self-diagnosis or self-evaluation, nor for the diagnosis or evaluation of other non-qualified personnel. This report does not replace, nor is intended to replace a complete clinical evaluation by your state-licensed veterinarian. Under no circumstances will EquineIR™, Integrated Equine Infrared or its affiliates be held responsible for illness, injury, or death to the patient as a result of the information contained herein. This report does not replace, nor is intended to replace a complete clinical evaluation.

Your EquineIR™ Technician looks forward to working with you in the future. If you would like to set up an ongoing maintenance imaging program for your horse(s), we can arrange this at discounted rates along with multiple horse discounts. Please call our office with any questions as we would love to assist you in your success.

Sincerely,

***Ann Ashby, CET***

Thermographer, *Certified Equine Infrared Thermographer*  
Southern Ontario Equine Thermography



Phone: 905-503-0549

[southernontarioequinethermography@gmail.com](mailto:southernontarioequinethermography@gmail.com)

[www.southernontarioequinethermography.com](http://www.southernontarioequinethermography.com)

**PATIENT:** leRoy

**THERMOGRAPHY DATE:** November 29, 2014

**IMAGING TIME:** 3:50

## EQUINE CLIENT INFORMATION

**CLIENT NAME:** Dan Harnett  
**MAILING ADDRESS:** 380 Woburn Ave, Toronto, Ontario M5M 1L5  
**CLIENT EMAIL:** dharnett@curtisswright.com  
**CLIENT PHONE:** 416-787-5934

**HORSE AGE:** 6  
**HORSE BREED:** Appendix  
**HORSE PRIMARY USE:** Pleasure

## SURVEY INFORMATION

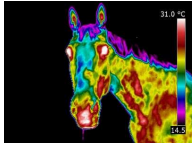
**THERMOGRAPHER:** Ann Ashby, CET  
**INFRARED CERTIFICATION #:** 8087  
**INFRARED CAMERA MODEL:** Flir E60 **CAMERA SERIAL NUMBER:** 49002927  
**NUMBER OF THERMAL IMAGES SUBMITTED:** 30

**WEATHER:** partly sunny slightly windy  
**APPROXIMATE TEMPERATURE:** 1 °C  
**IMAGING LOCATION:** Barn aisle

**EXERCISED PRIOR:** Yes **HOW LONG:** 15 minutes **WHEN:** 3:50  
**TYPE OF EXERCISE:** hand walk, trot, due to lameness – scanned earlier due to cold temps and wanted to keep circulation in legs as prominent as possible for full scan

**BOOTS OR WRAPS ON HORSE?** No **HOURS SINCE:** Not Applicable  
**FLYSPRAY OR LINIMENTS APPLIED WITHIN 24 HOURS:** No

**REASON FOR SCAN or HISTORY RECEIVED:** LeRoy has always been reluctant to move forward. Won't reach with his front right. Tends to land on heel vs toe. VET lameness evaluation August 13, 2014 – X-Ray front hooves/lameness evaluation/gait if off. Results of VET EXAM : Observation didn't find anything abnormal with the xrays – vet observed a slight clouding of the ligament connecting P2 to the Navicular bone. Vet said it wasn't unusual and shouldn't be problematic long-term once it calcified and should not cause any pain. No presence of bone chips or deterioration of the Navicular bone. Flexion good and no thickening of the ligaments. Hoof exam with calipers showed a response on the outer wall to the inner-heel right hoof. Vet didn't provide anything conclusive on the lameness evaluation. Post scan I palpated scapula area, Left Sacro-ilia area and Pecs all were taut and reactive – although he is compensating.. FARRIER – Last trimmed September 14th. Cycle every 6 weeks. Work done, Trim/Front shoes. Removed front shoes November 10th week – gait was off with shoes as well \*\*\*\*\* Please note barn was quite cold and light above wasn't directly above us but close by



Phone: 905-503-0549

[southernontarioequinethermography@gmail.com](mailto:southernontarioequinethermography@gmail.com)

[www.southernontarioequinethermography.com](http://www.southernontarioequinethermography.com)

**PATIENT:** leRoy

**THERMOGRAPHY DATE:** November 29, 2014

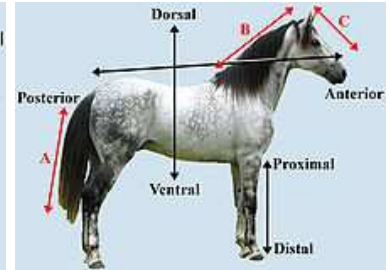
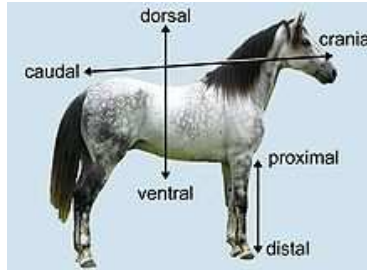
**IMAGING TIME:** 3:50

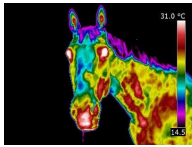
## INTERPRETATION INFORMATION (Completed by Veterinarian)

**INTERPRETATION TYPE:** Full Enhanced Survey

**DATE OF INTERPRETATION:** 12/5/2014

**REVIEWING VETERINARIAN:** Dr. Debra K Tibbitts

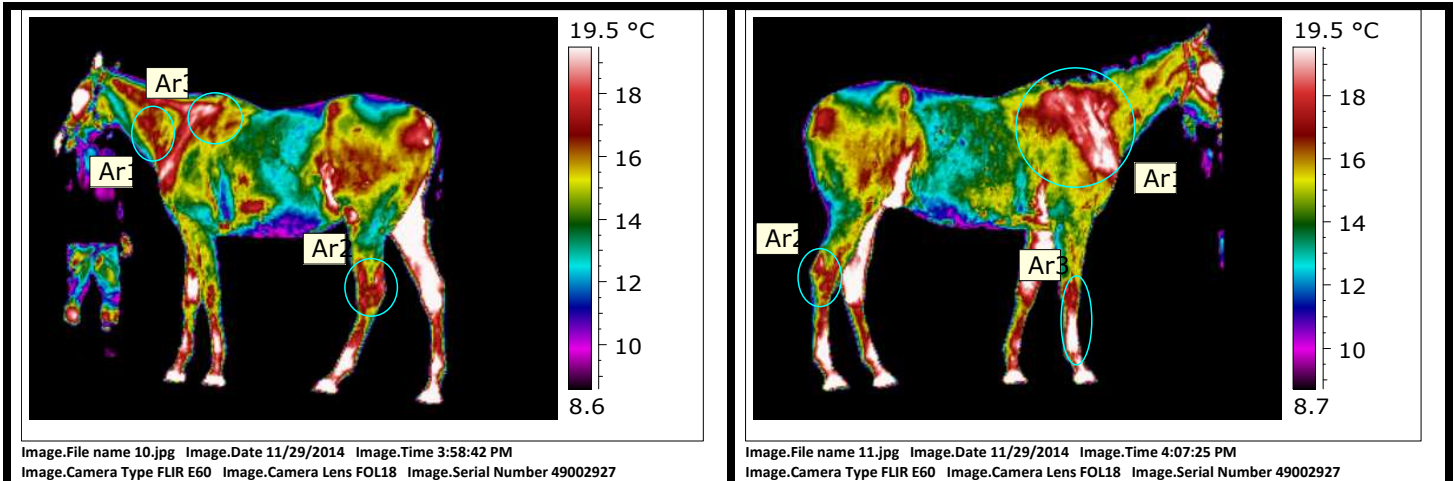




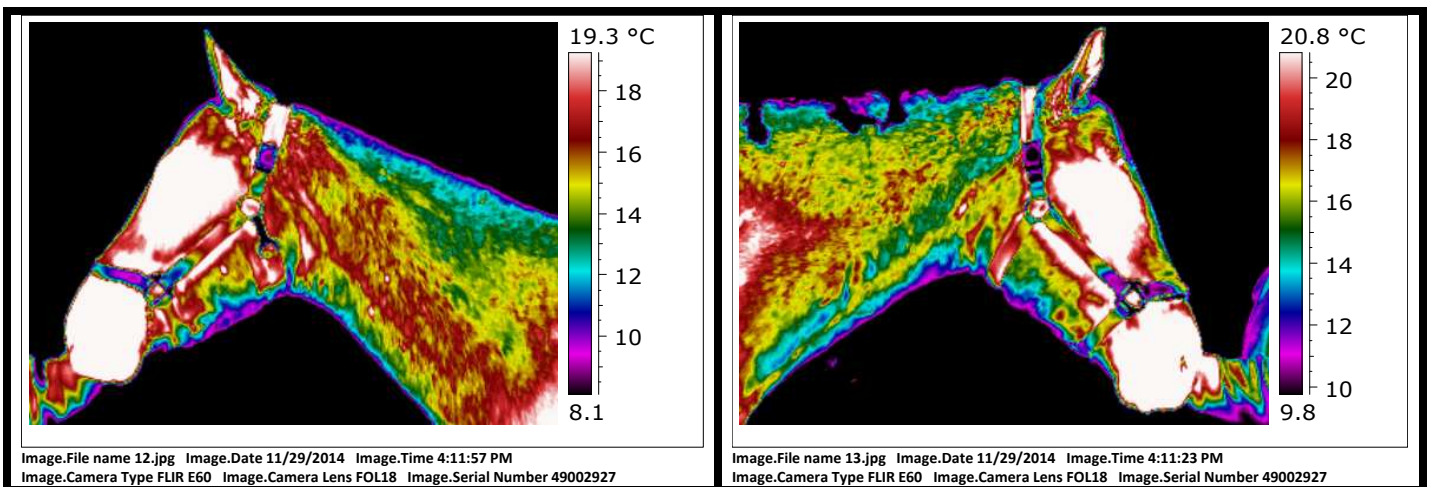
**PATIENT:** leRoy

**THERMOGRAPHY DATE:** November 29, 2014

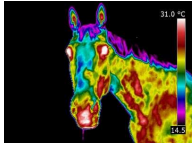
**IMAGING TIME:** 3:50



**Increased heat shoulders and wither pockets. Musculoskeletal inflammation, chiropractic lesions at withers and scapulothoracic junction and/or saddle fit issues present. Saddle fit is addressed in other scan. Direct palpation checking for symmetry and pain response, motion palpation of the scapula and upper thoracic vertebrae recommended for further evaluation. There is increased heat in the lower cervical area on the left – chiropractic evaluation recommended of the lower cervical vertebrae. Increased heat both hocks, greater on the left. Flexion stress tests recommended for further evaluation of possible tarsitis. Increased heat right front carpus and lower limb. Flexion stress tests of both fetlock and carpus recommended. Radiographs or ultrasound may be warranted based on results of tests.**



**NSF: No Significant Findings**



PATIENT: leRoy

THERMOGRAPHY DATE: November 29, 2014

IMAGING TIME: 3:50

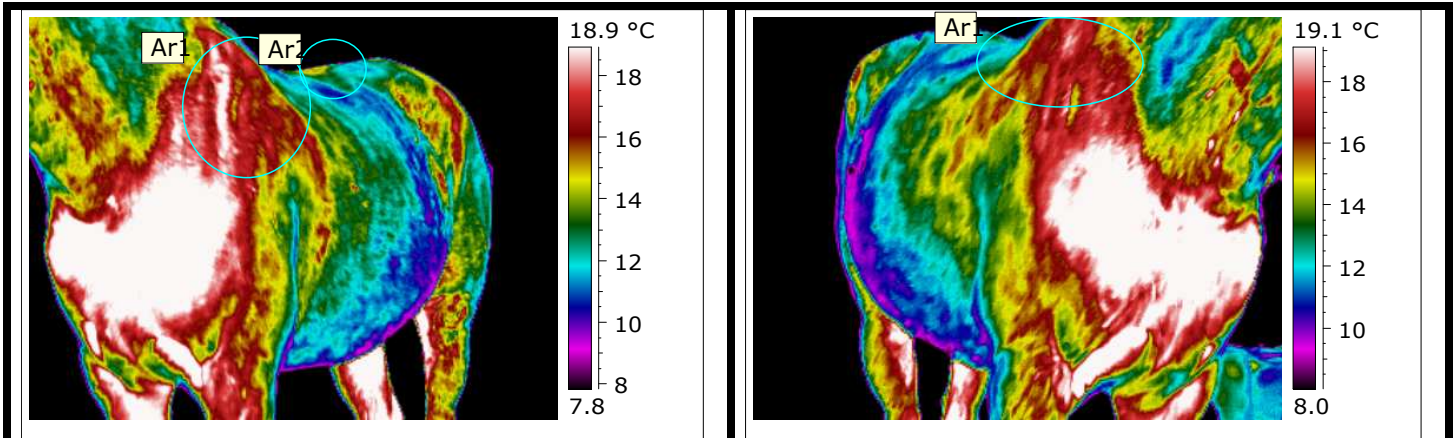


Image.File name 14.jpg Image.Date 11/29/2014 Image.Time 4:09:34 PM  
Image.Camera Type FLIR E60 Image.Camera Lens FOL18 Image.Serial Number 49002927

Image.File name 15.jpg Image.Date 11/29/2014 Image.Time 4:10:38 PM  
Image.Camera Type FLIR E60 Image.Camera Lens FOL18 Image.Serial Number 49002927

Increased heat shoulders. See previous comments page 4, images 10/11. Area of increased heat on the right along the lumbar spine may be artifact but it may be due to inflammation. Palpation recommended to check.

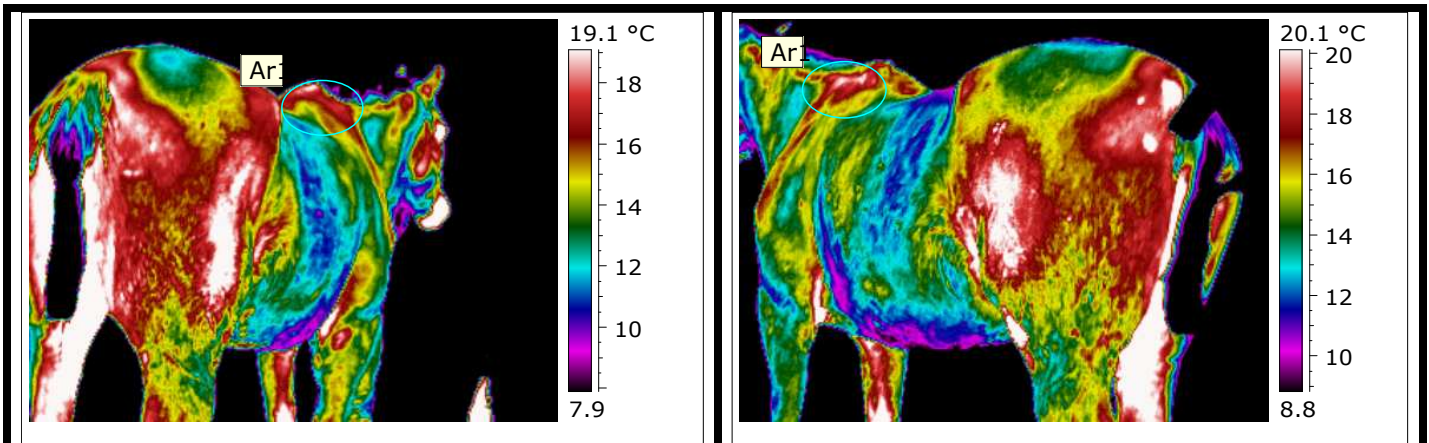
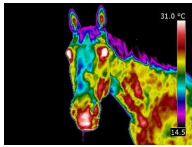


Image.File name 16.jpg Image.Date 11/29/2014 Image.Time 4:31:01 PM  
Image.Camera Type FLIR E60 Image.Camera Lens FOL18 Image.Serial Number 49002927

Image.File name 17.jpg Image.Date 11/29/2014 Image.Time 4:26:37 PM  
Image.Camera Type FLIR E60 Image.Camera Lens FOL18 Image.Serial Number 49002927

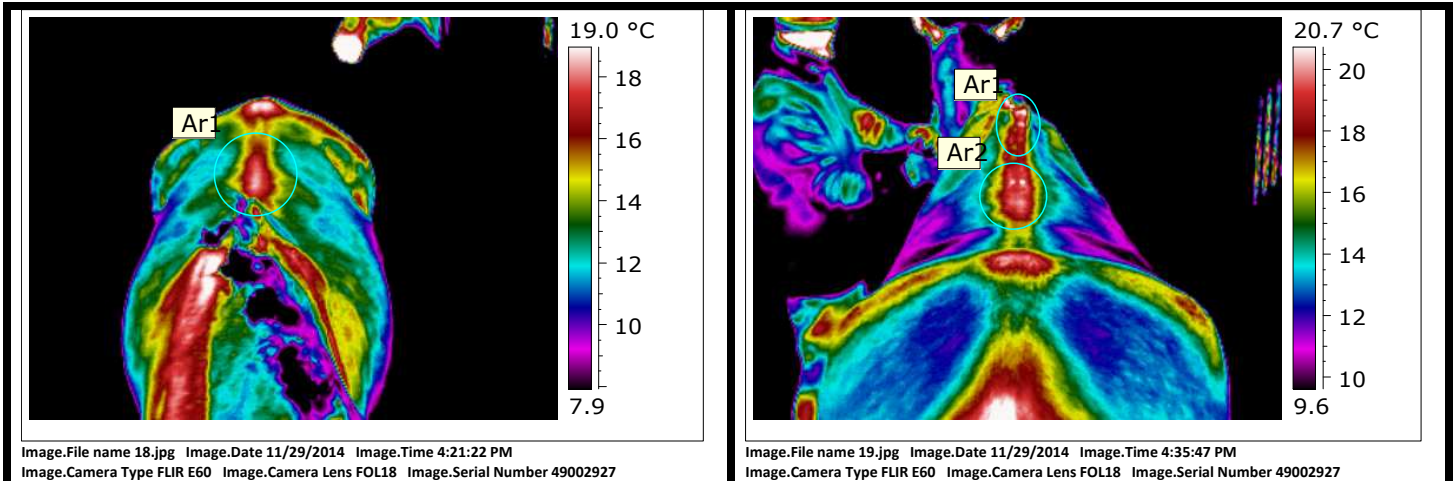
Increased heat withers. See previous comments page 4, images 10/11.



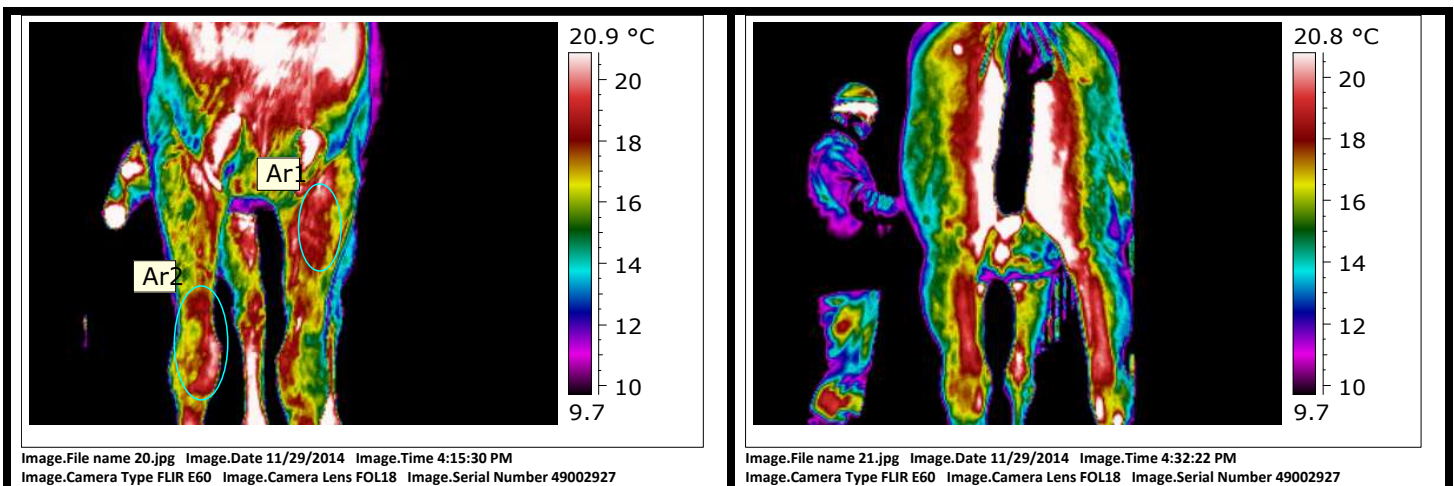
PATIENT: leRoy

THERMOGRAPHY DATE: November 29, 2014

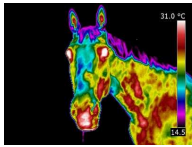
IMAGING TIME: 3:50



Asymmetry seen over the sacroiliac area in image 18 likely due to light artifact based on digital image. Increased heat in thoracolumbar spine with extension into the paraspinal muscles indicating inflammation due to saddle fit issues or chiropractic lesions. Saddle fit addressed in saddle fit scan. Veterinary chiropractic evaluation recommended for further evaluation of inflammation along the spine.



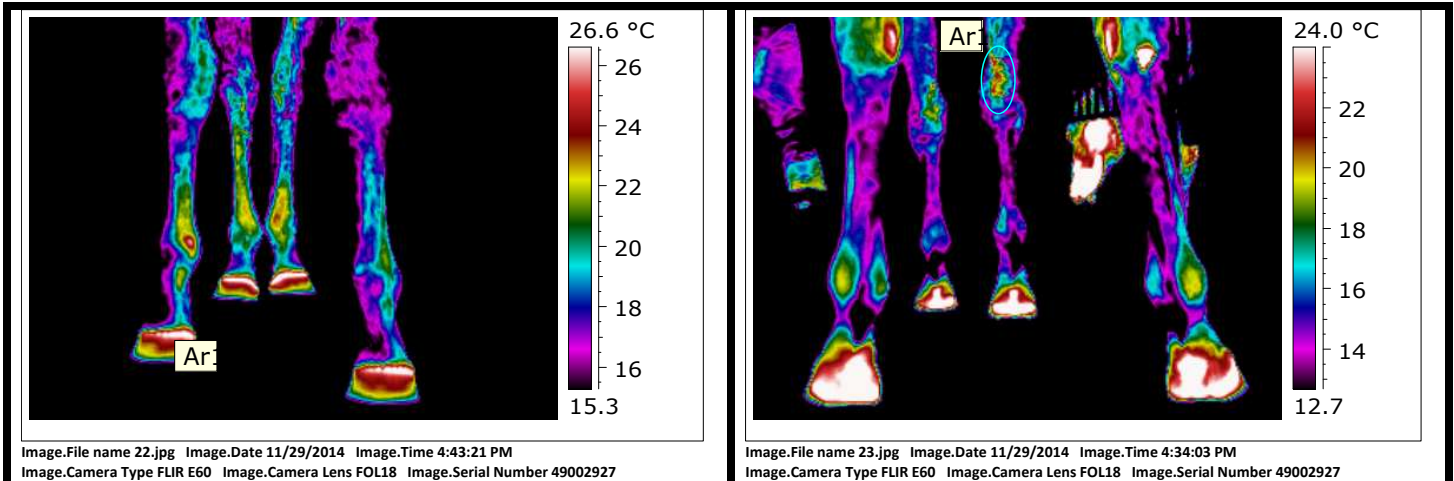
Some asymmetry seen in the chest/front limbs with heat greater in the right front carpus and left medial forelimb. Direct palpation of the areas recommended along with flexion testing of the right front carpus. Left forelimb may be positioning or off-loading of other limb.



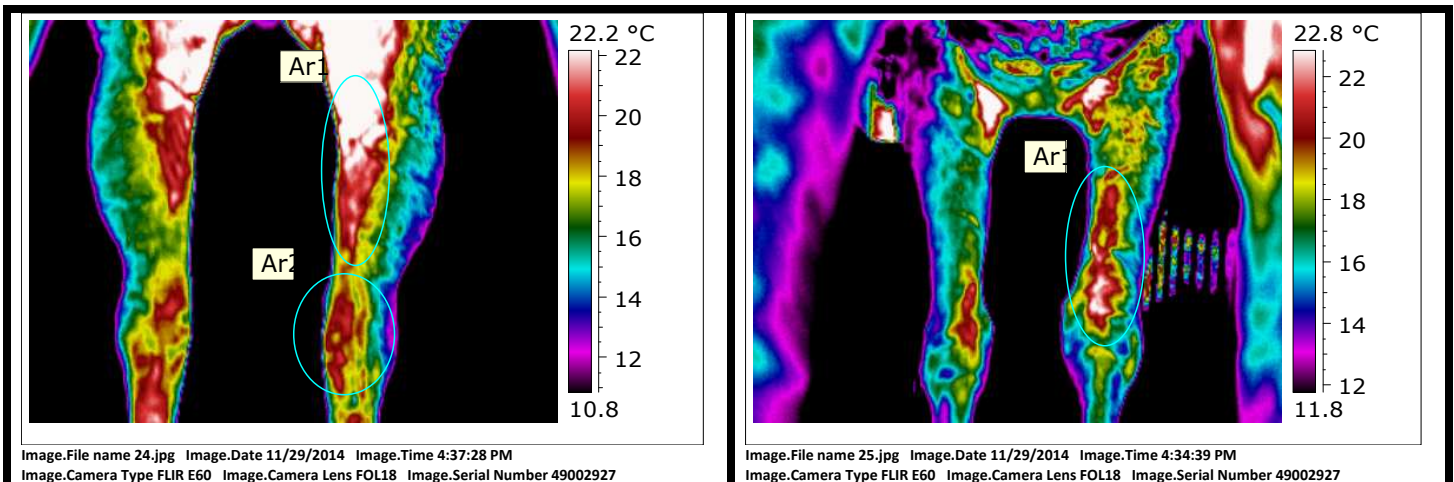
**PATIENT:** leRoy

**THERMOGRAPHY DATE:** November 29, 2014

**IMAGING TIME:** 3:50

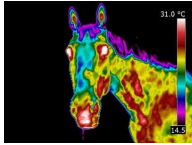


**Uneven pressure seen at all four coronary bands. Hoof imbalances and/or uneven limb loading present. Hoof balance and postural evaluation recommended. Slight asymmetry in the forelimbs with heat greater on the right. Local palpation recommended.**



**Asymmetry in the medial gaskins and hocks with heat greater on the right. Palpation for inflammation and/or fibrotic changes recommended. Asymmetry in the forelimbs with heat greater at the right carpus. Palpation, motion palpation and flexion testing recommended.**

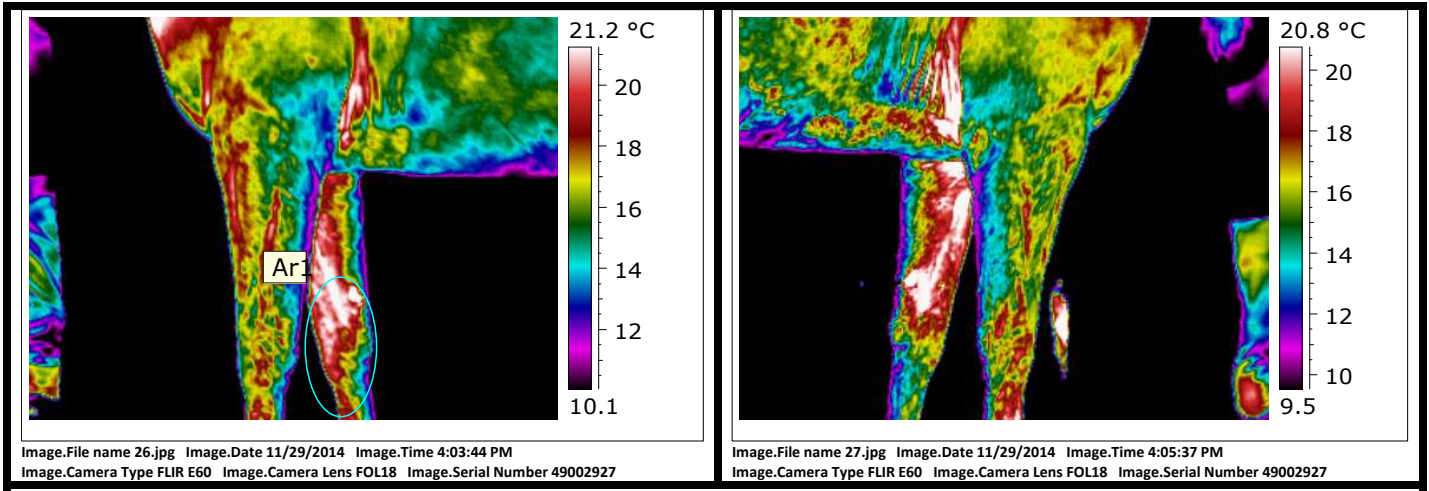




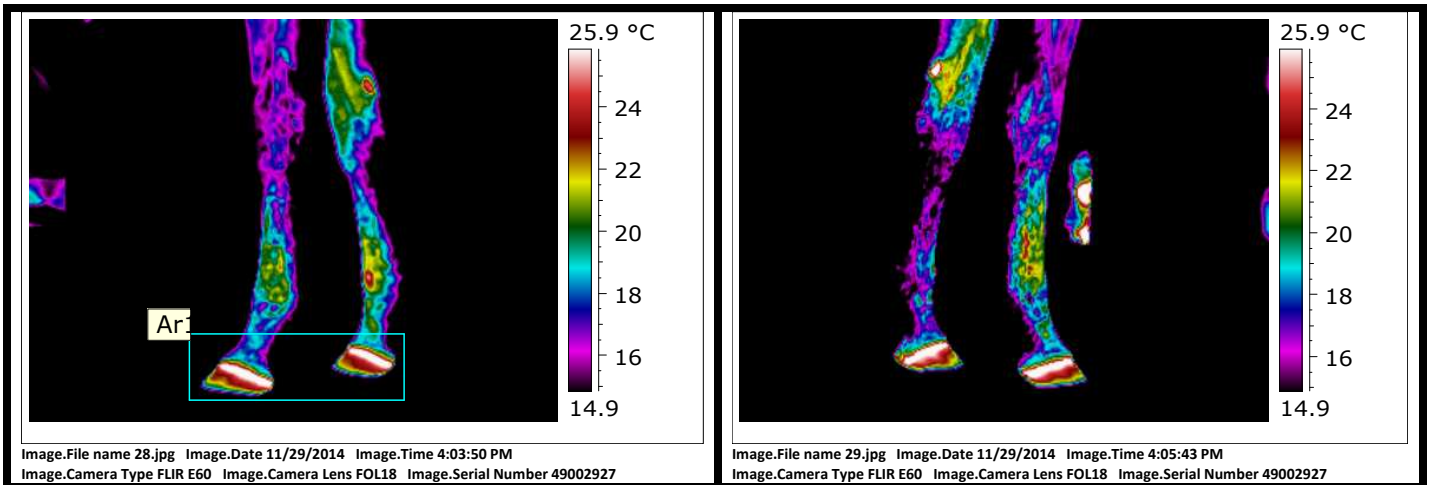
PATIENT: leRoy

THERMOGRAPHY DATE: November 29, 2014

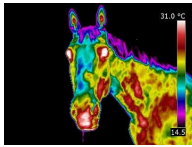
IMAGING TIME: 3:50



Asymmetry in the forelimbs with heat greater medial right carpus. See previous comments page 8, image 25.



Increased heat feet. See previous comments page 8, image 22.



PATIENT: leRoy

THERMOGRAPHY DATE: November 29, 2014

IMAGING TIME: 3:50

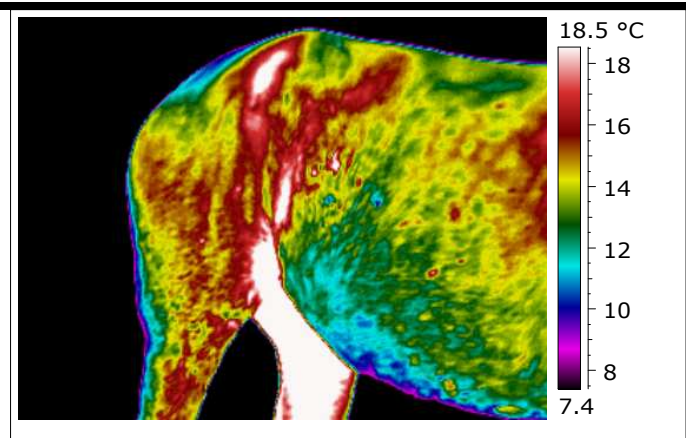
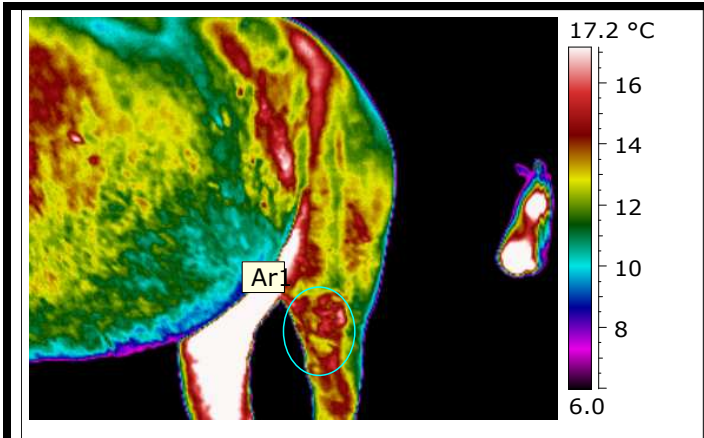


Image.File name 30.jpg Image.Date 11/29/2014 Image.Time 4:24:22 PM  
Image.Camera Type FLIR E60 Image.Camera Lens FOL18 Image.Serial Number 49002927

Image.File name 31.jpg Image.Date 11/29/2014 Image.Time 4:25:46 PM  
Image.Camera Type FLIR E60 Image.Camera Lens FOL18 Image.Serial Number 49002927

**Slightly increased heat left stifle, direct palpation of the joint and ligaments recommended checking for effusion/inflammation. Stifle stress tests may also be warranted if effusion is present.**

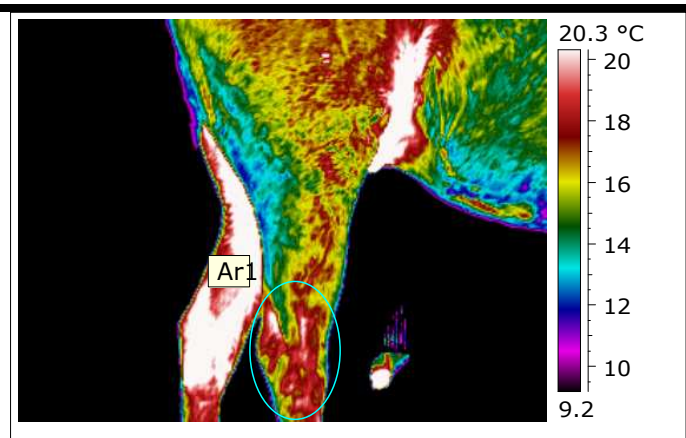
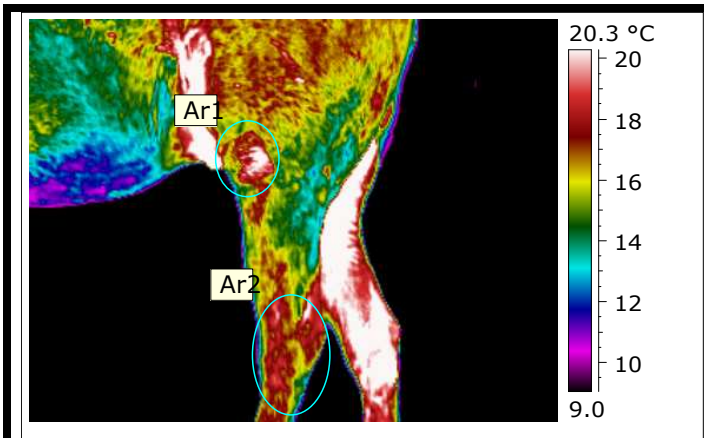
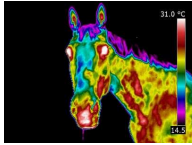


Image.File name 32.jpg Image.Date 11/29/2014 Image.Time 4:01:26 PM  
Image.Camera Type FLIR E60 Image.Camera Lens FOL18 Image.Serial Number 49002927

Image.File name 33.jpg Image.Date 11/29/2014 Image.Time 4:04:50 PM  
Image.Camera Type FLIR E60 Image.Camera Lens FOL18 Image.Serial Number 49002927

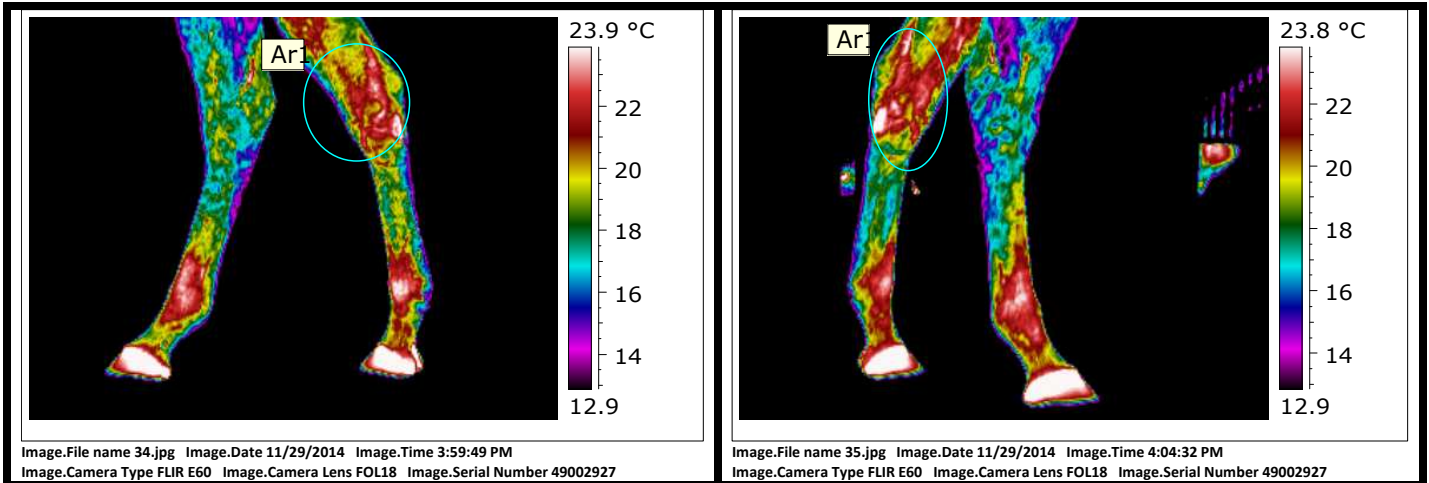
**Possible artifact lateral patella on the left, not able to discern from digital images. Increased heat both hocks. Gait analysis, direct palpation and flexion stress tests recommended checking for tarsitis.**



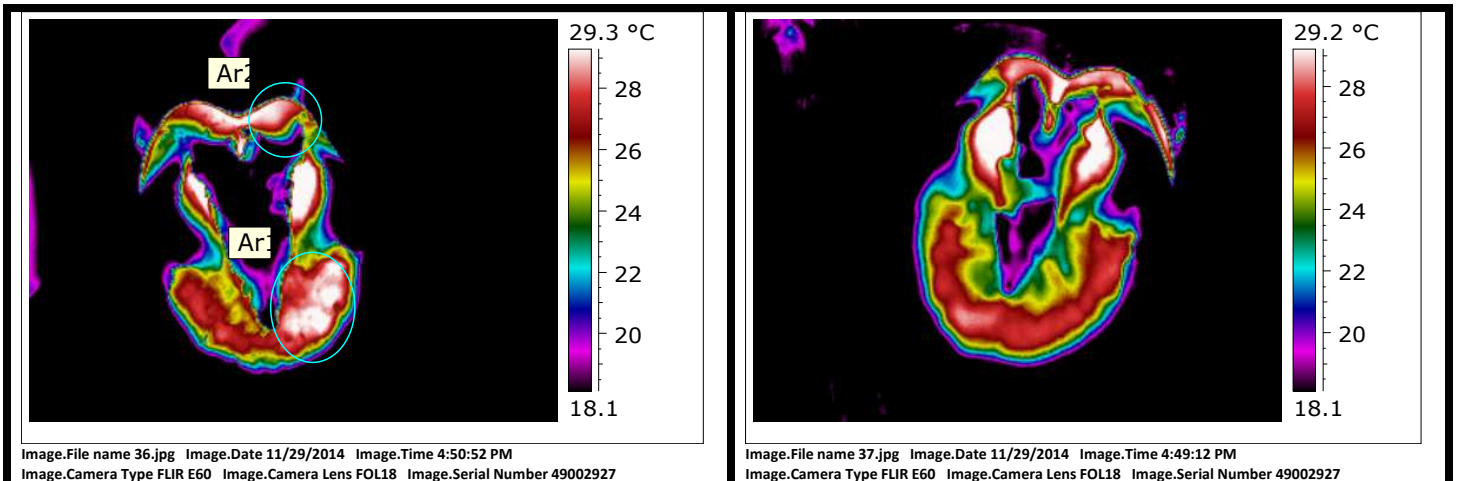
PATIENT: leRoy

THERMOGRAPHY DATE: November 29, 2014

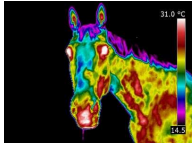
IMAGING TIME: 3:50



Increased heat both medial hocks. See previous comments page 10, images 32/33.



Uneven pressure seen in the left front foot with heat/pressure greater medially. Right front foot appears to have a more contracted heel and in other views a more upright foot. Right front foot and somewhat the left front have increased heat at the frog sulci that may represent infection and should be probed to check.



PATIENT: leRoy

THERMOGRAPHY DATE: November 29, 2014

IMAGING TIME: 3:50

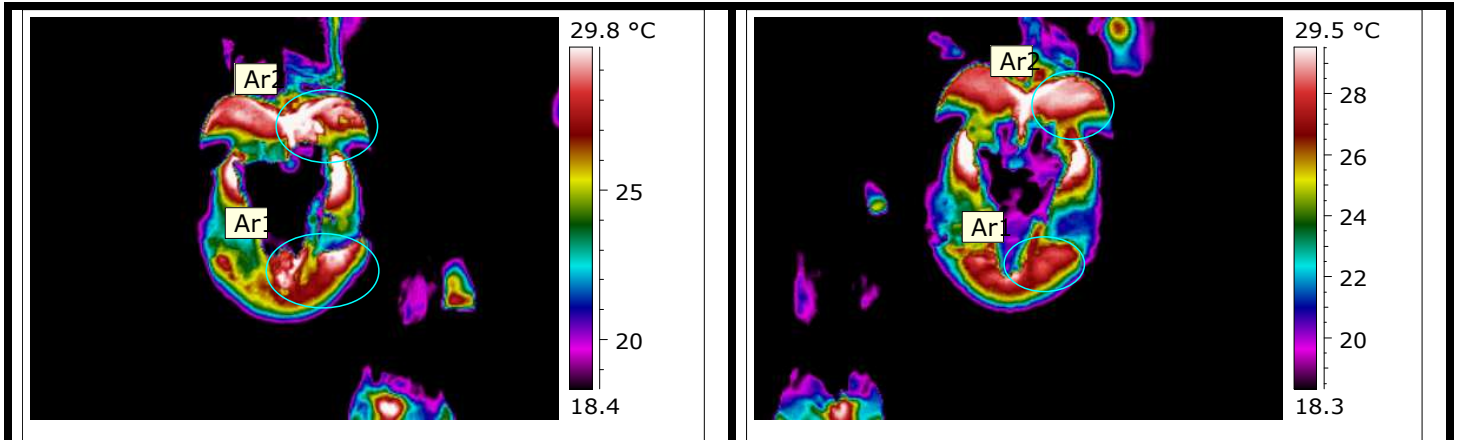
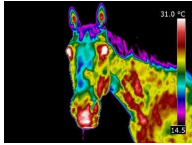


Image.File name 38.jpg Image.Date 11/29/2014 Image.Time 4:50:32 PM  
 Image.Camera Type No camera Image.Camera Lens No lens Image.Serial Number -

Image.File name 39.jpg Image.Date 11/29/2014 Image.Time 4:50:10 PM  
 Image.Camera Type No camera Image.Camera Lens No lens Image.Serial Number -

**Asymmetry seen in the hind feet with heat greater in the left hind medial and right hind laterally. Soles appear convex. Hoof imbalances and/or uneven limb loading present. Postural and hoof balance evaluation recommended.**



**PATIENT:** leRoy

**THERMOGRAPHY DATE:** November 29, 2014

**IMAGING TIME:** 3:50

**SUMMARY AND RECOMMENDATIONS:** leRoy is a handsome young horse but his thermal images show some areas of concern that should have further investigation.

Many of the images have breeze/moisture and light artifacts. Comments are based on the images presented.

Increased heat shoulders and wither pockets. There is increased heat in the lower cervical area on the left. There is increased heat in the thoracolumbar spine with extension into the paraspinal muscles. Musculoskeletal inflammation, chiropractic lesions, and/or saddle fit issues likely present. Saddle fit is addressed in previous scan. Veterinary chiropractic evaluation recommended.

Increased heat both hocks, greater on the left. Flexion tests recommended for further evaluation looking for possible tarsitis. Asymmetry in the gaskins with heat greater on the right. Palpation for inflammation and/or fibrotic changes recommended.

Increased heat right front carpus and lower limb. Palpation, motion palpation and flexion testing recommended. Radiographs or ultrasound may be warranted based on results of tests.

Uneven pressure seen at all four coronary bands. Uneven pressure seen in the left front foot with heat/pressure greater medially. The right front foot appears to have a more contracted heel and in other views a more upright foot. Both front feet have increased heat in the frog sulci that may represent infection and should be probed to rule it out. Asymmetry seen in the hind feet with heat greater in the left hind medially and right hind laterally. Soles appear convex in the hind feet. Hoof imbalances and/or uneven limb loading present. Hoof balance and postural evaluation recommended.

**Thank You!**

Reviewing Veterinarian: Debra K Tibbitts, DVM, CVCP, EDO, CVA, CIT

