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# Collation of FlexPLI Inverse Certification Test Results

Revision 1

- disclosing Information on Master Legs and Pass/Fail Ratio -

7<sup>th</sup> Meeting of Informal Group GTR9 Phase 2  
July 3<sup>rd</sup>, 2013

**Oliver Zander**

Bundesanstalt für Straßenwesen

**Bundesanstalt für Straßenwesen**

(Federal Highway Research Institute)

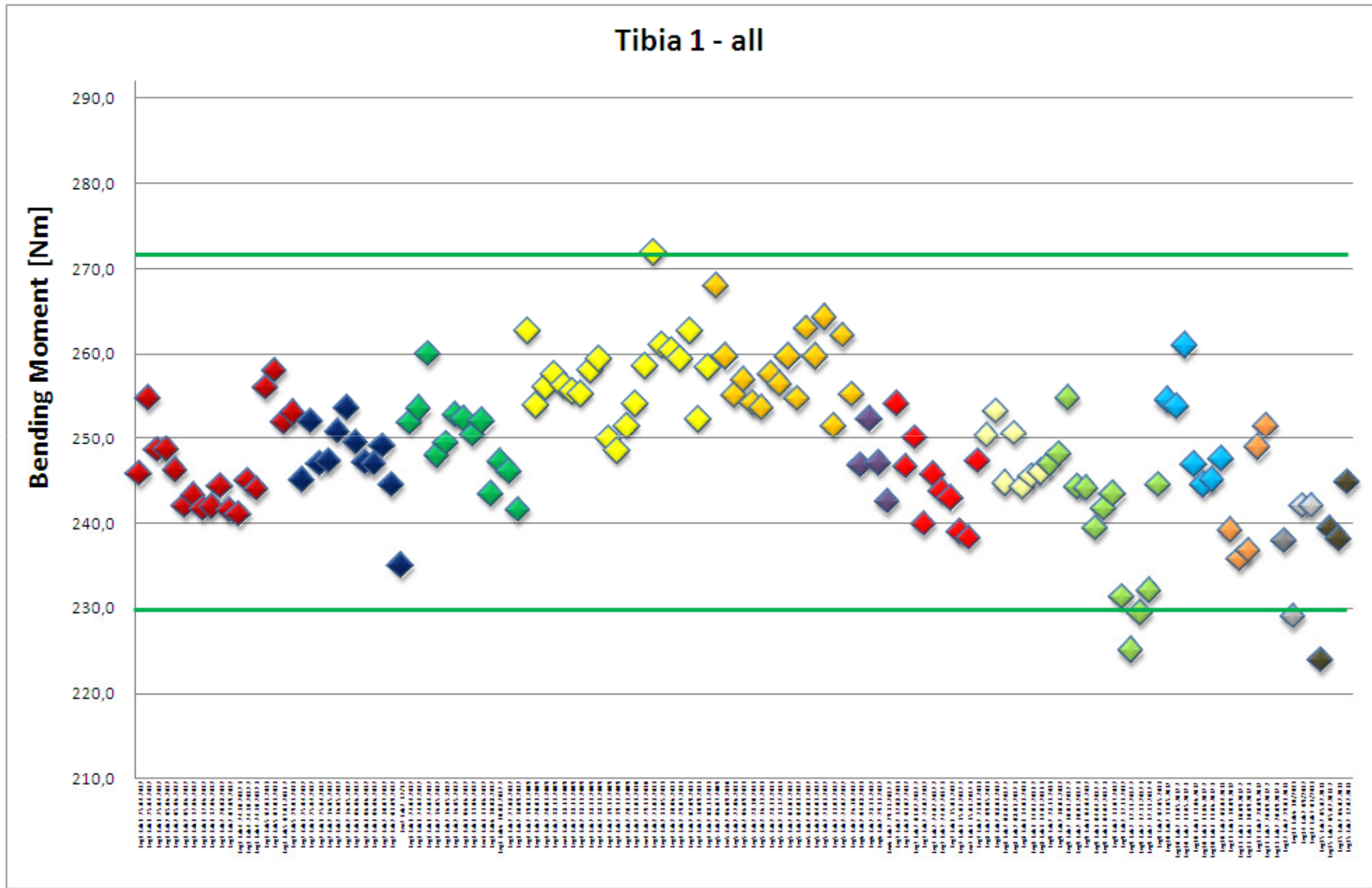
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# Dataset

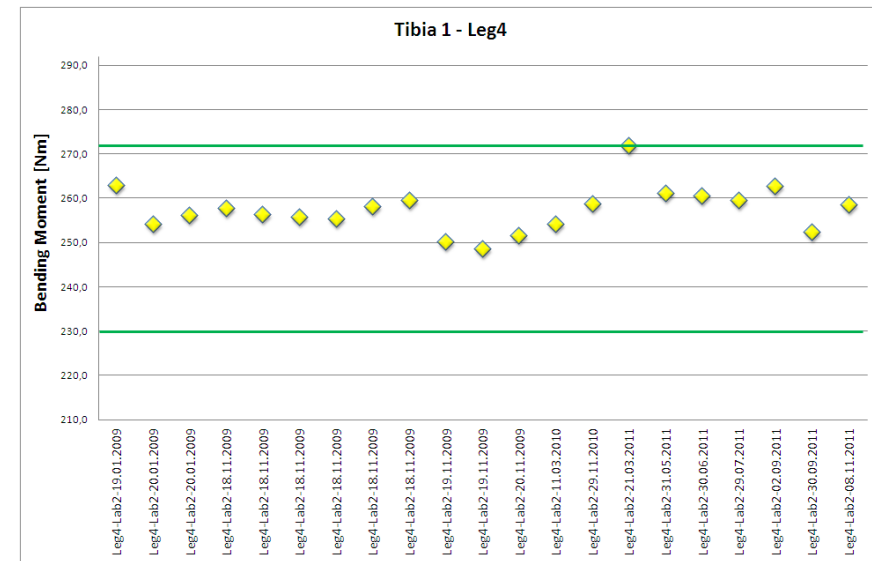
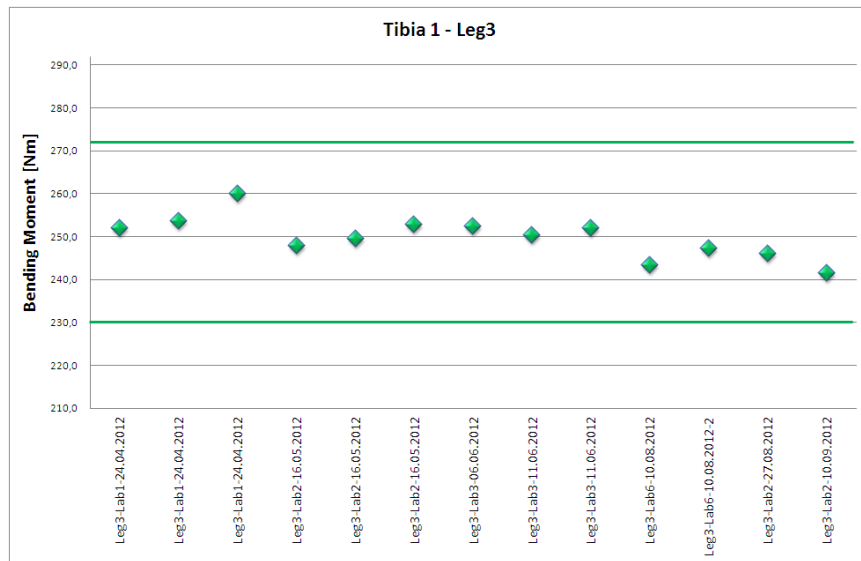
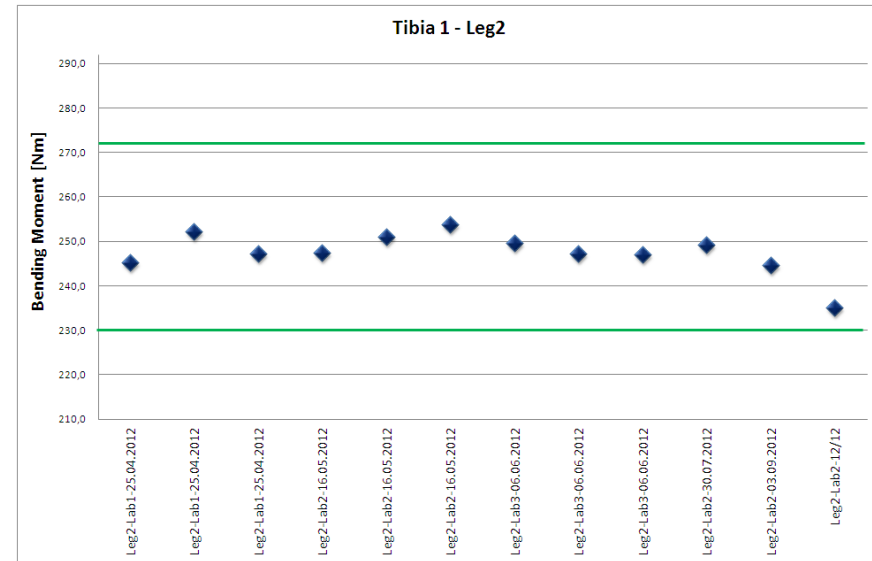
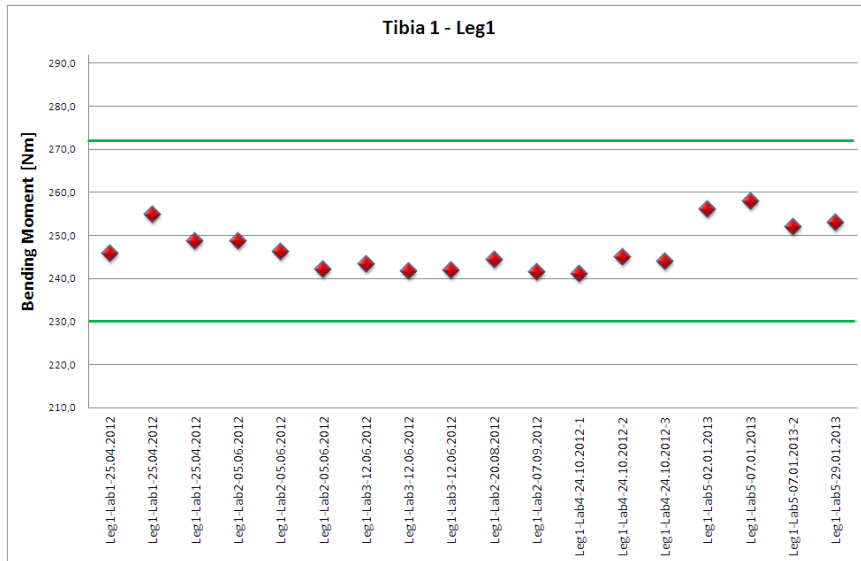


- **15 impactors**
  - **2 prototypes (leg 4 & leg 5)**
  - **13 serial production legs**
    - leg 1: Master Leg SN01**
    - leg 2: Master Leg SN03**
    - leg 3: Master Leg E-Leg**
  
- **7 test labs**
  
- **134 tests**
  - **37 tests w/ prototypes**
  - **97 tests w/ serial production legs**

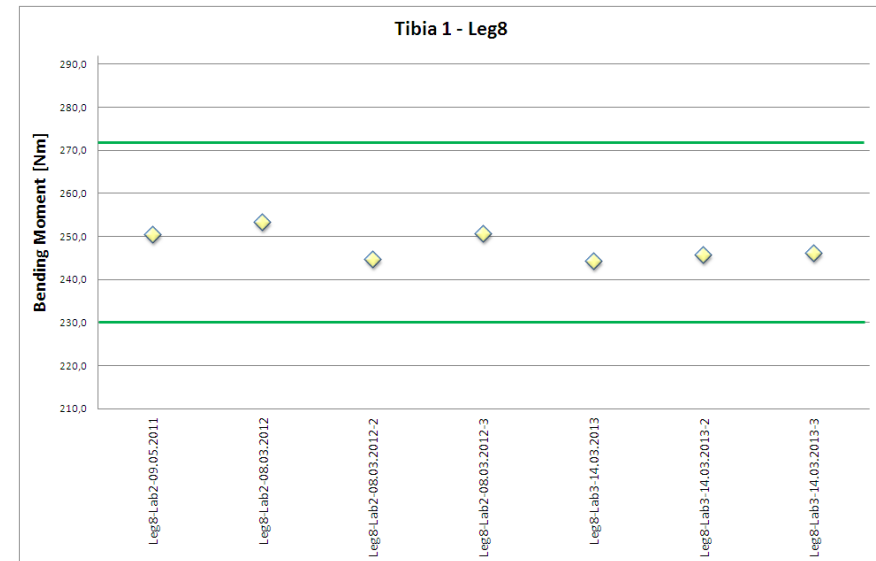
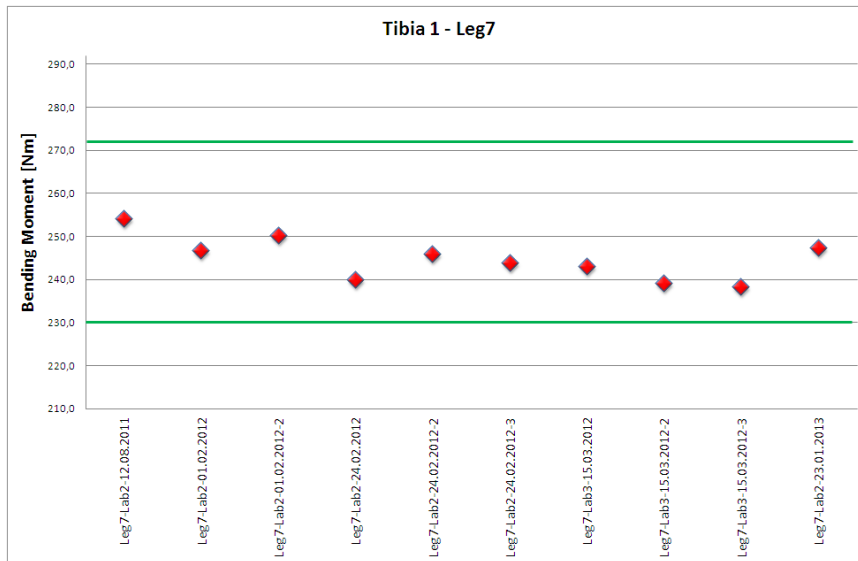
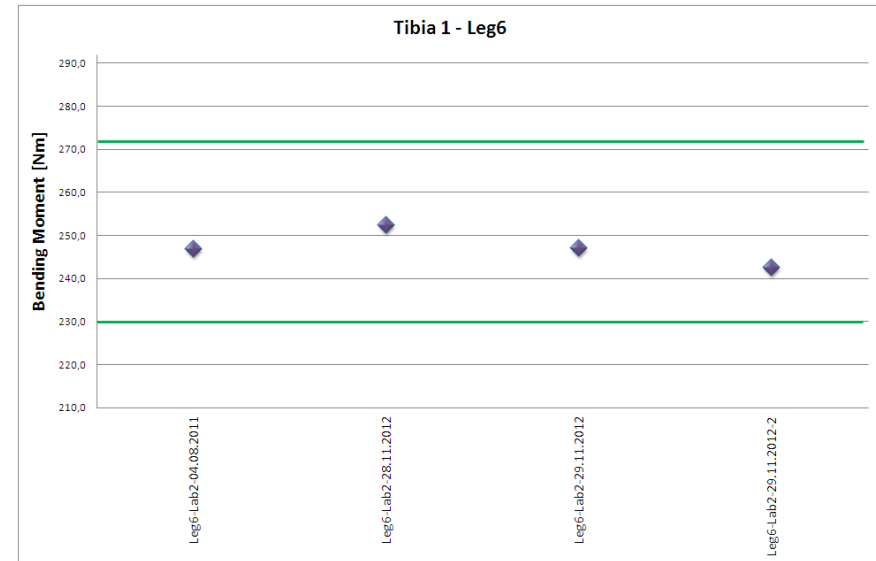
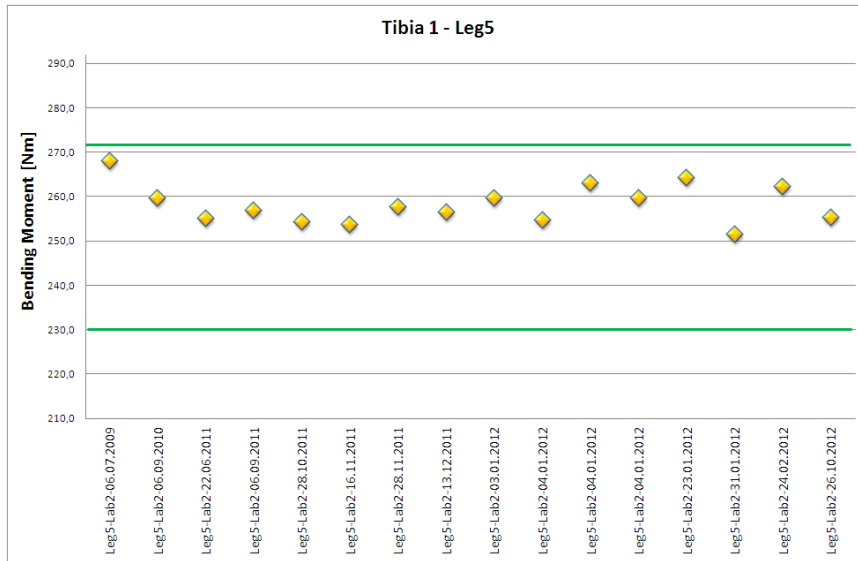
# Results Overview - Inverse Tests T1



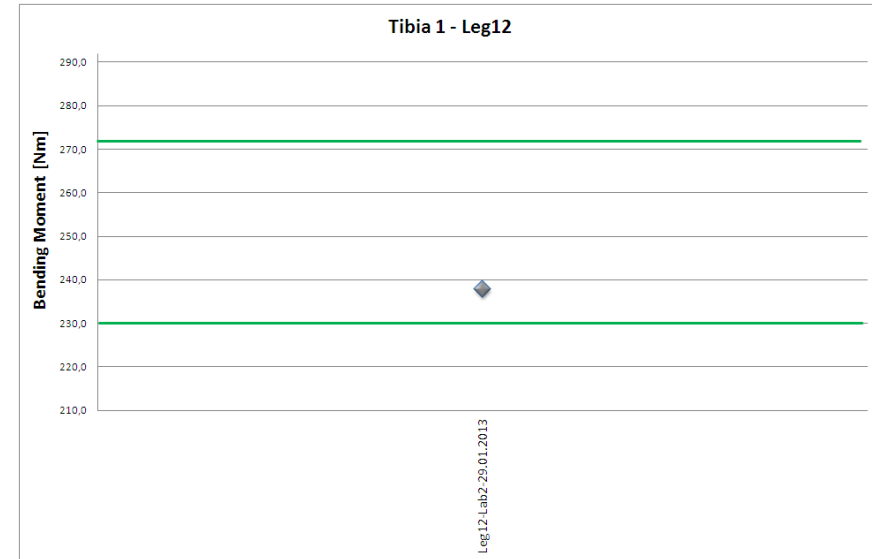
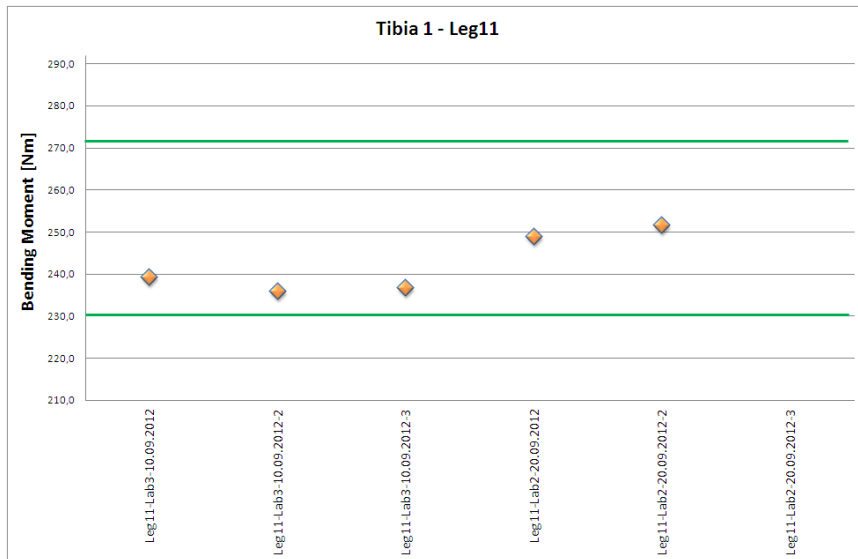
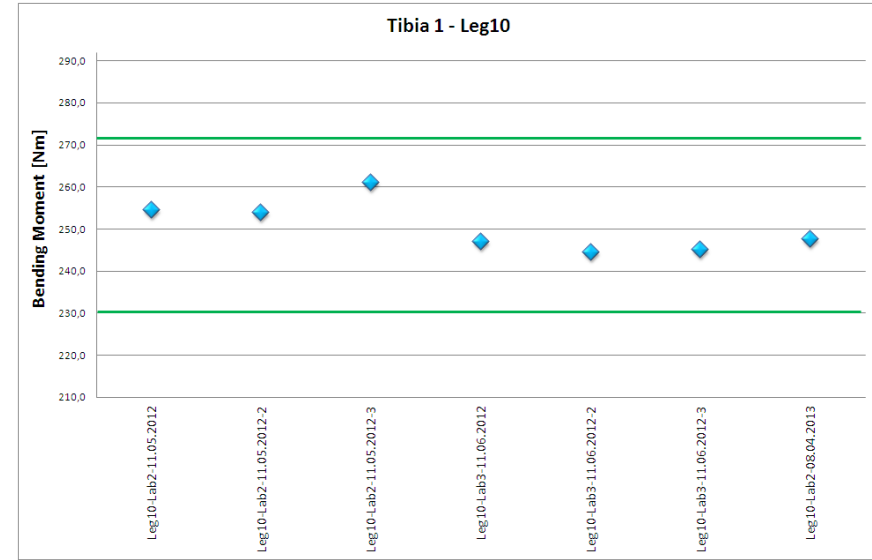
# Results Tibia 1 - Inverse Tests



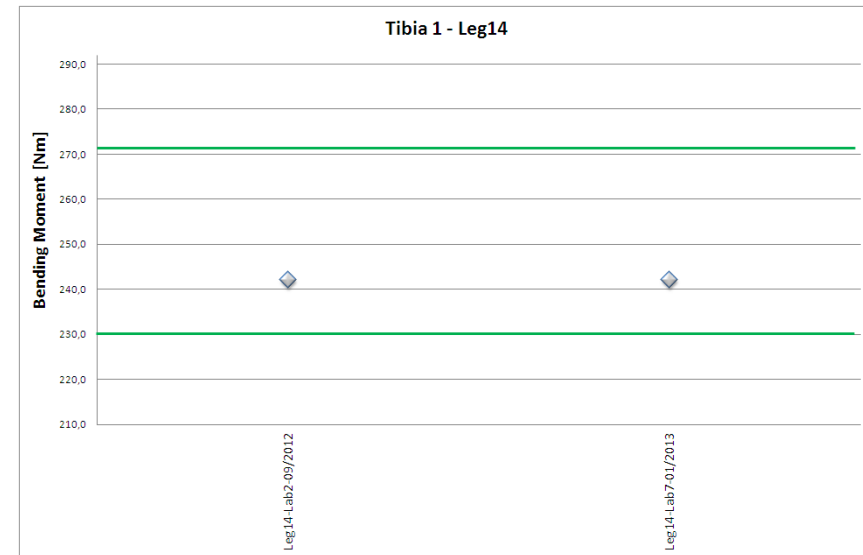
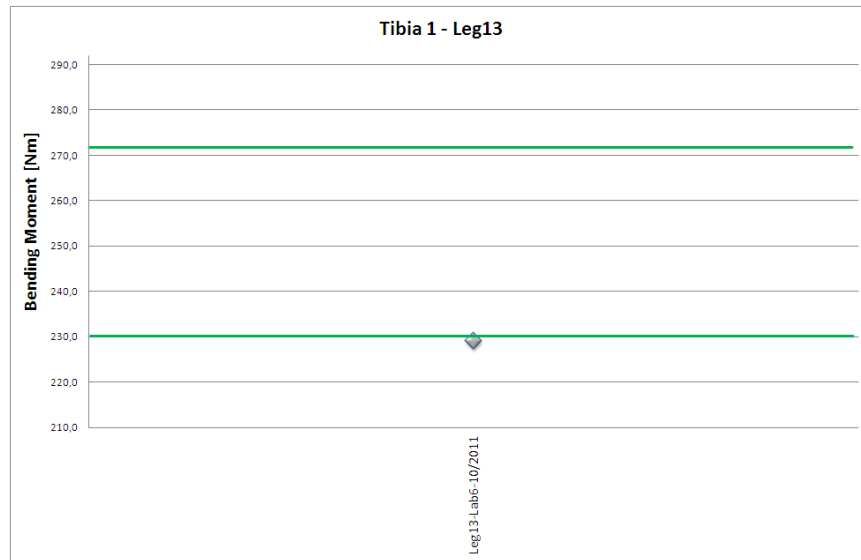
# Results Tibia 1 - Inverse Tests



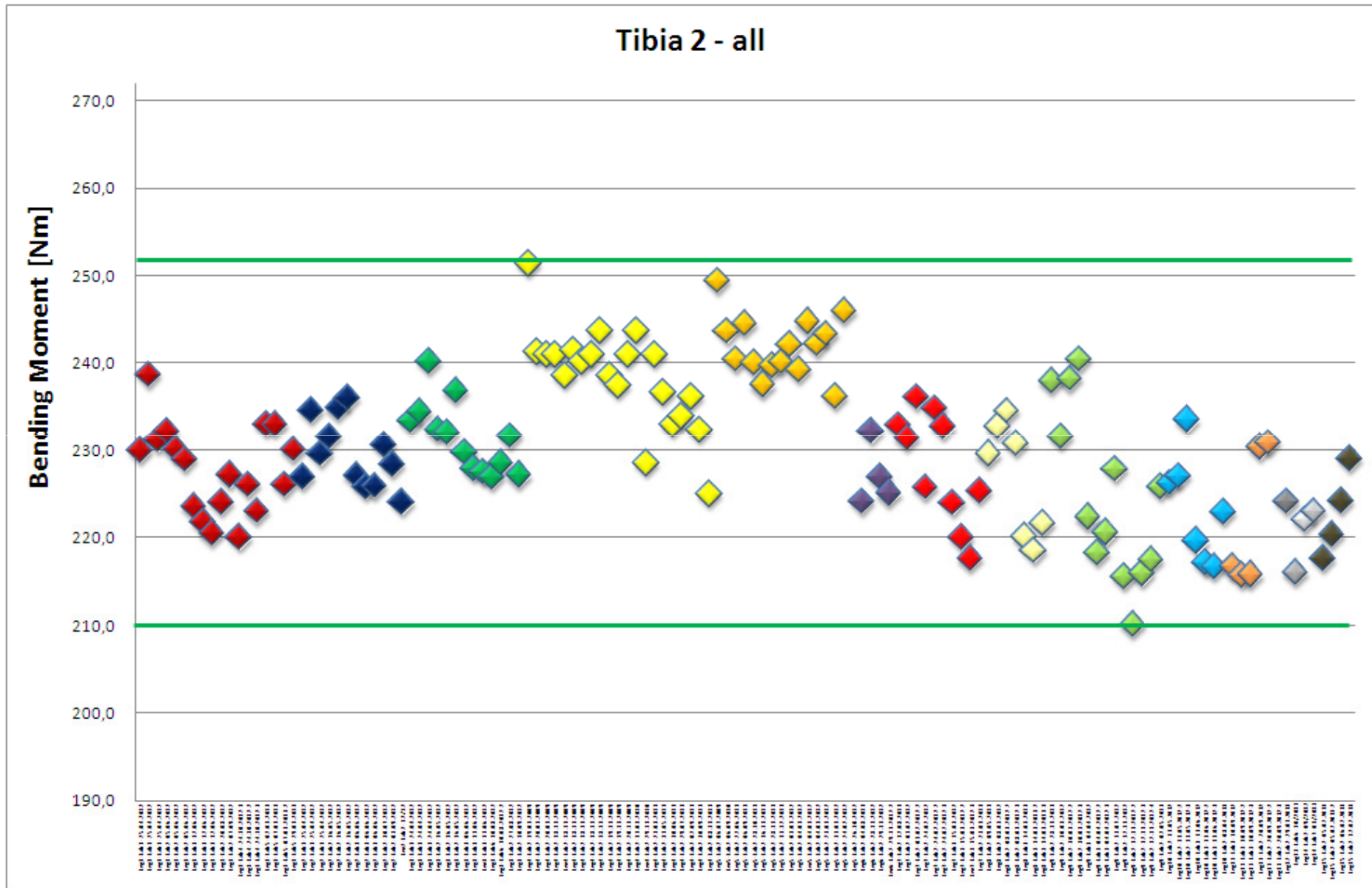
# Results Tibia 1 - Inverse Tests



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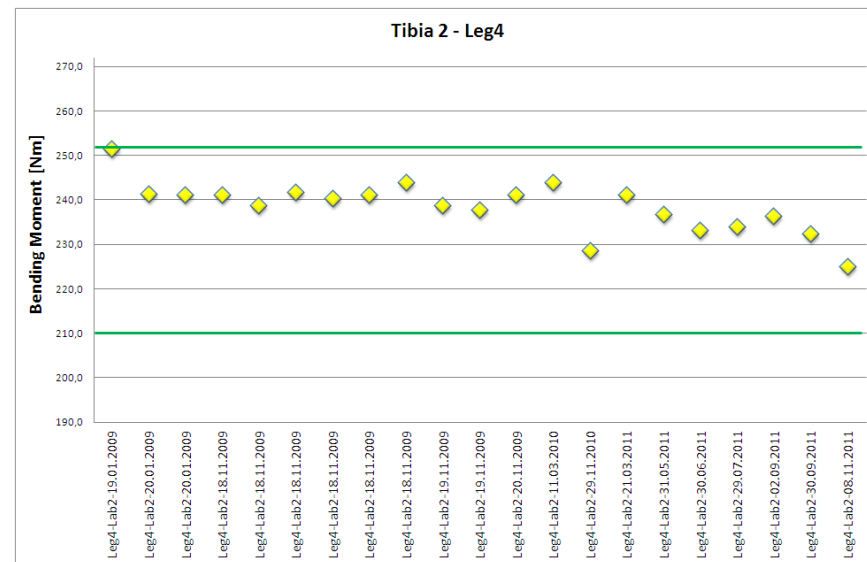
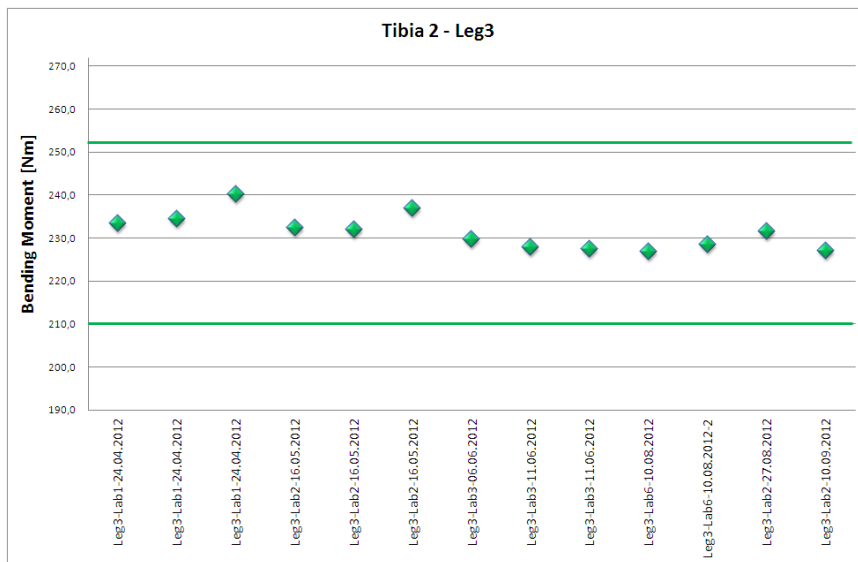
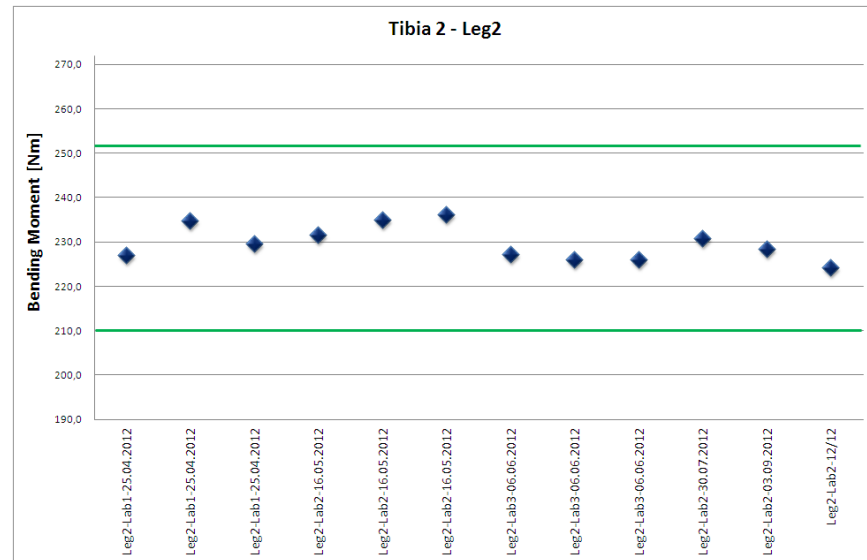
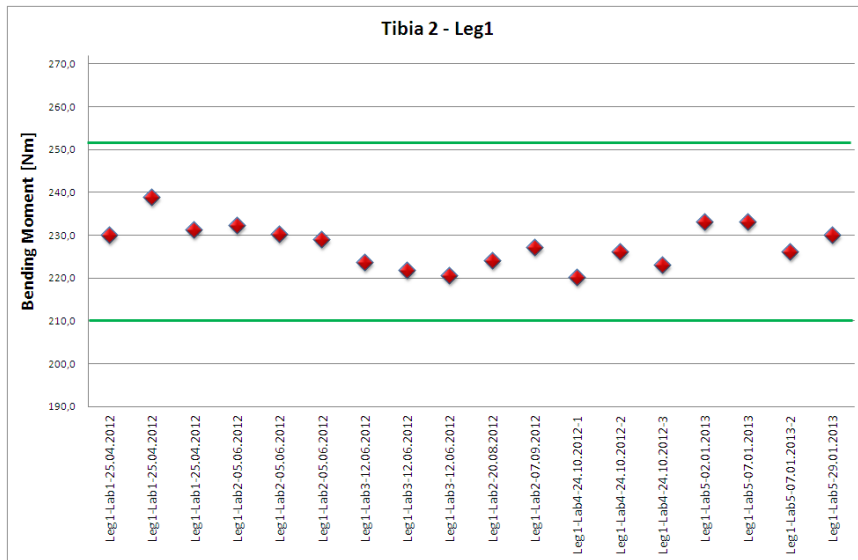


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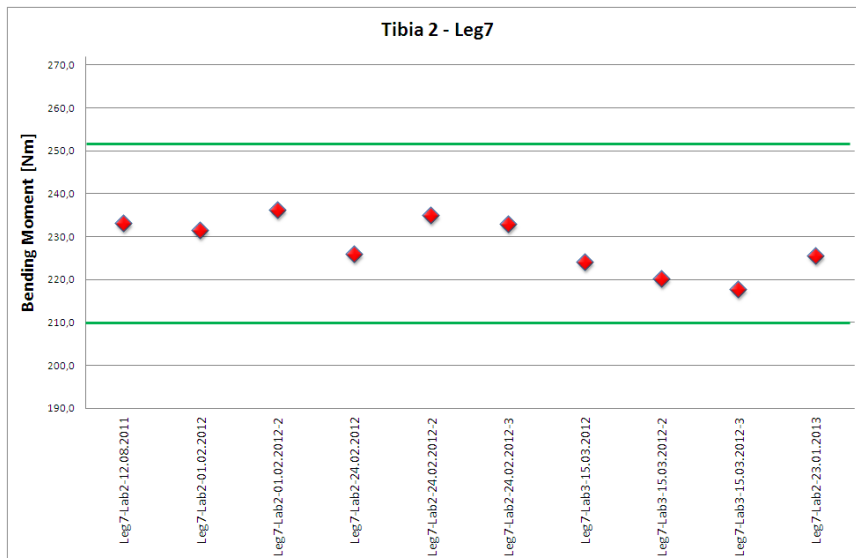
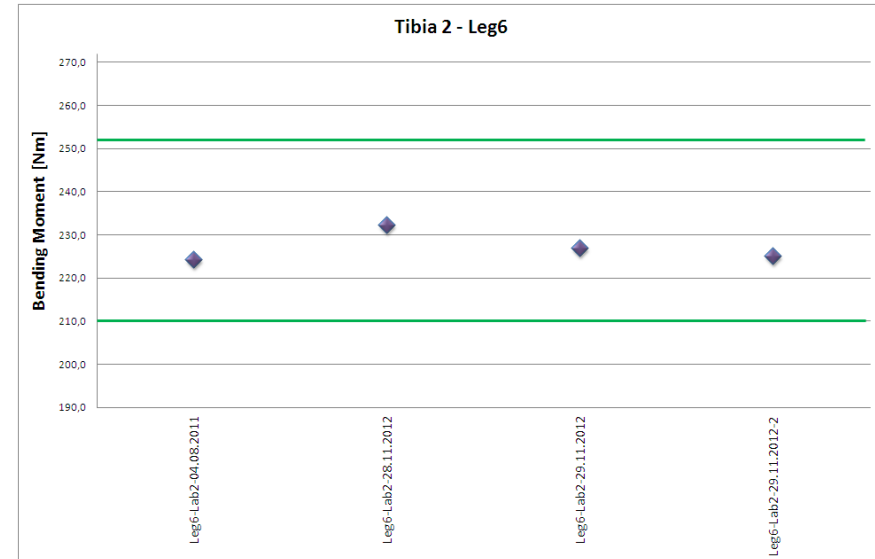
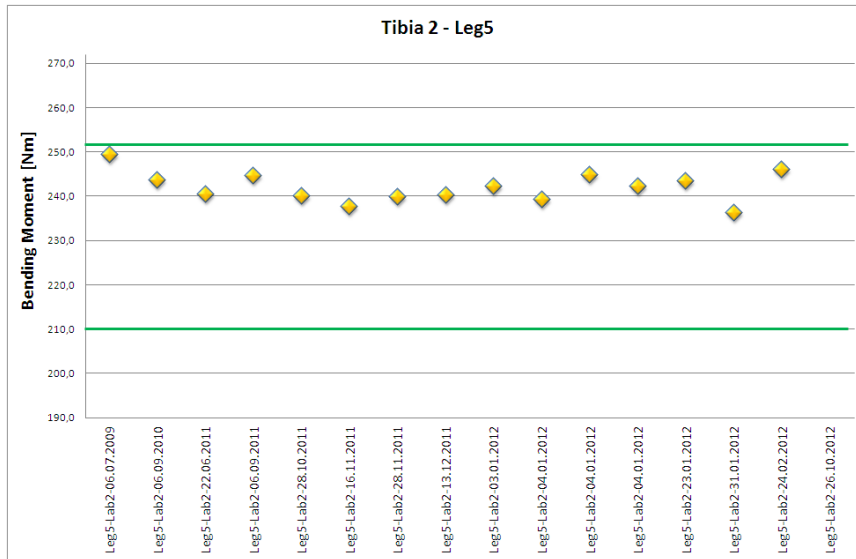




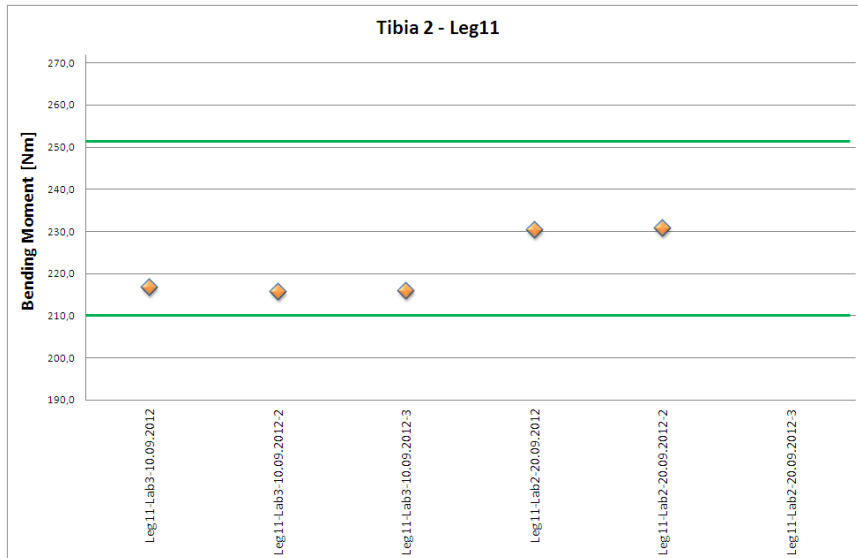
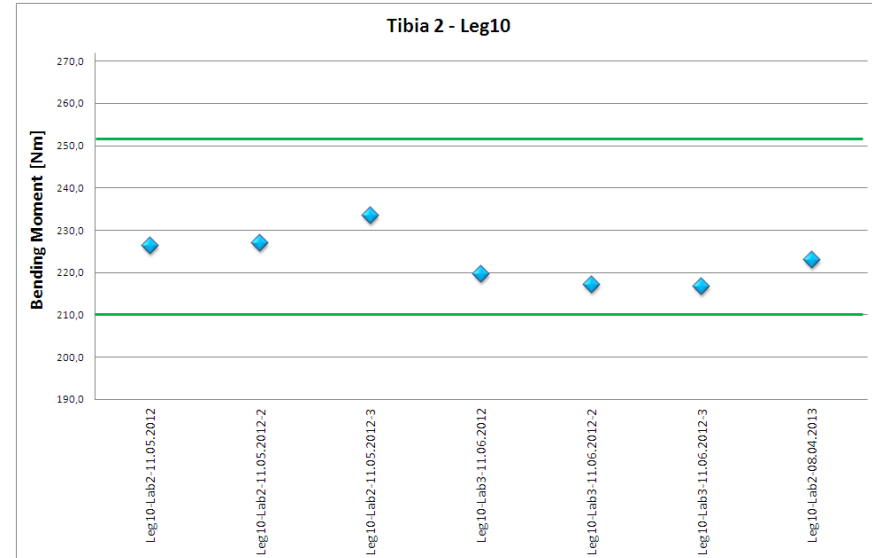
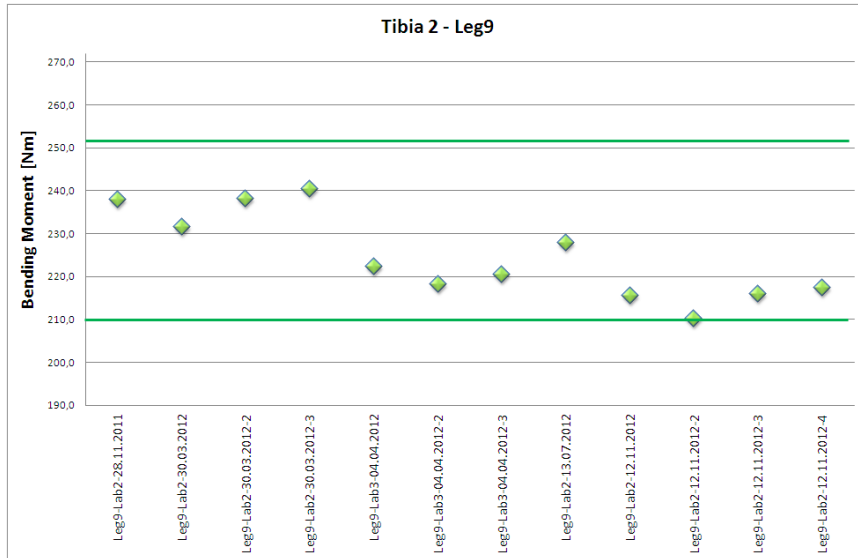
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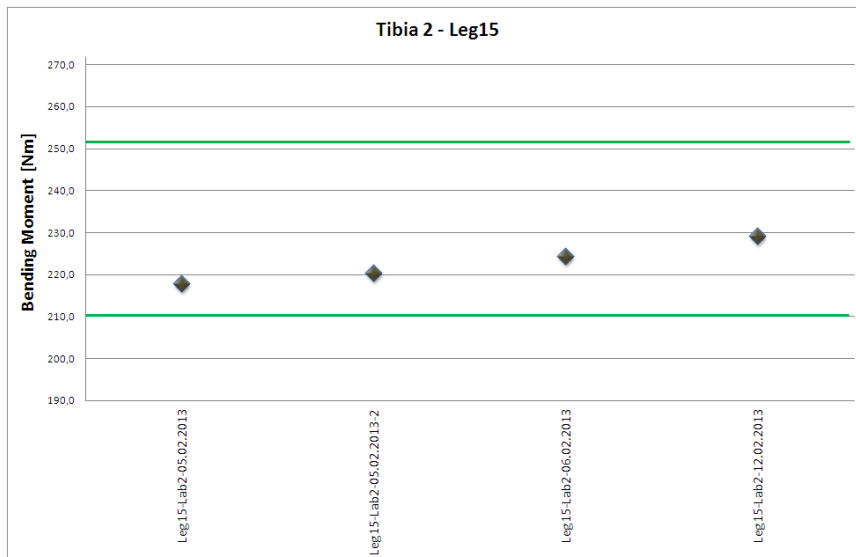
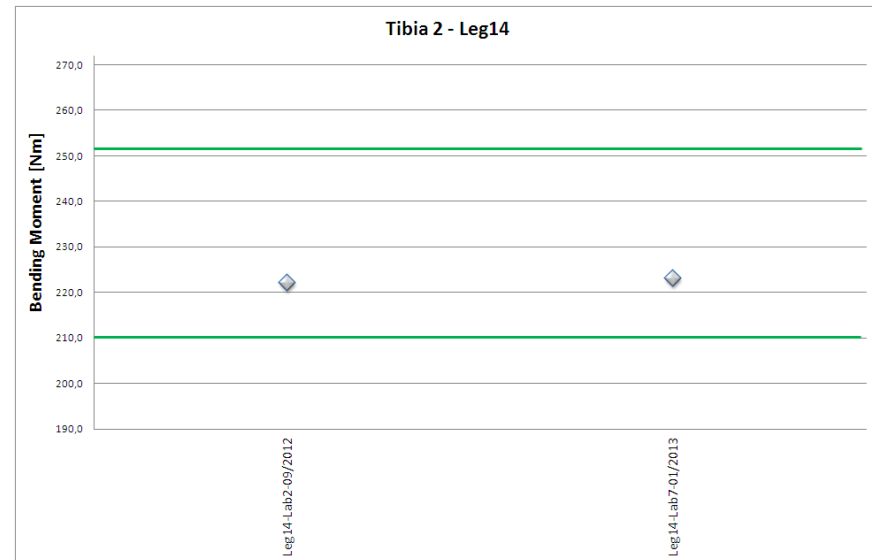
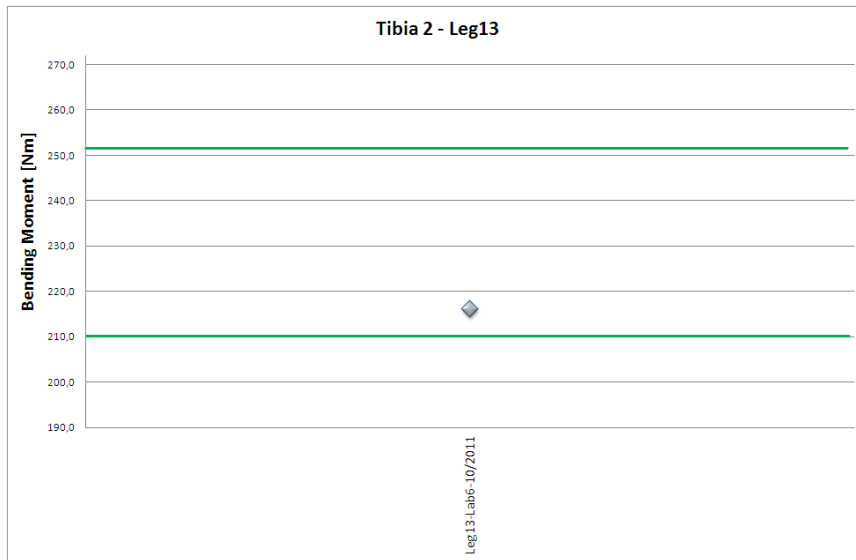
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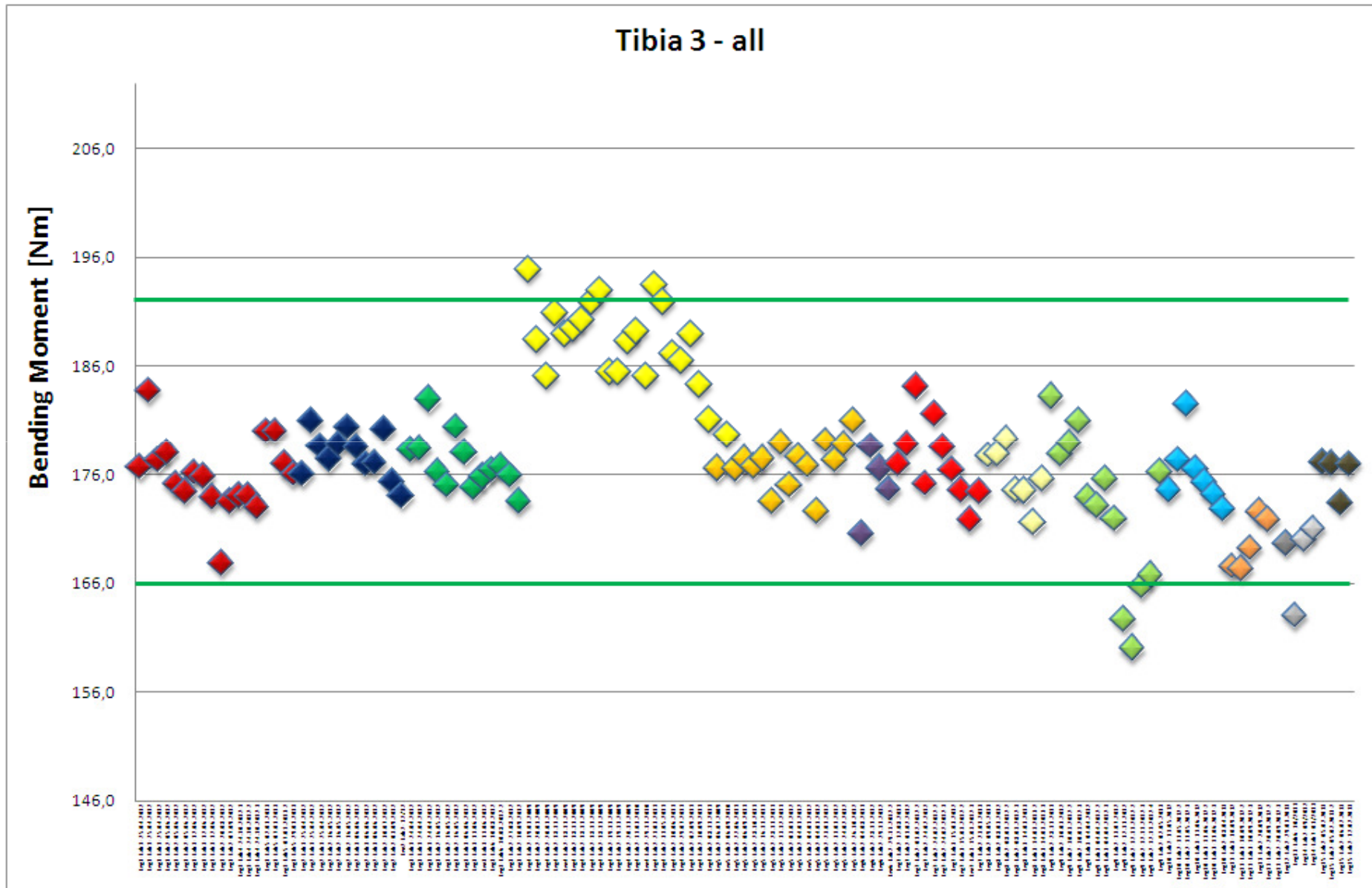
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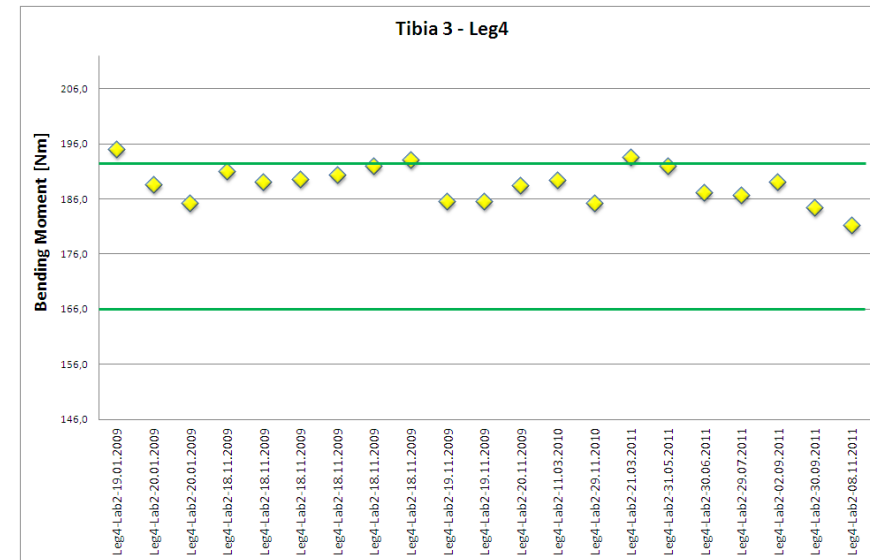
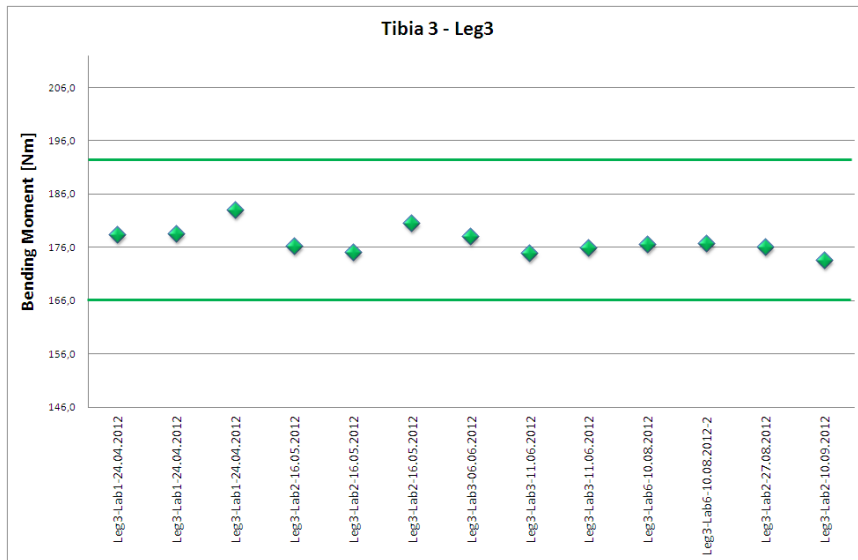
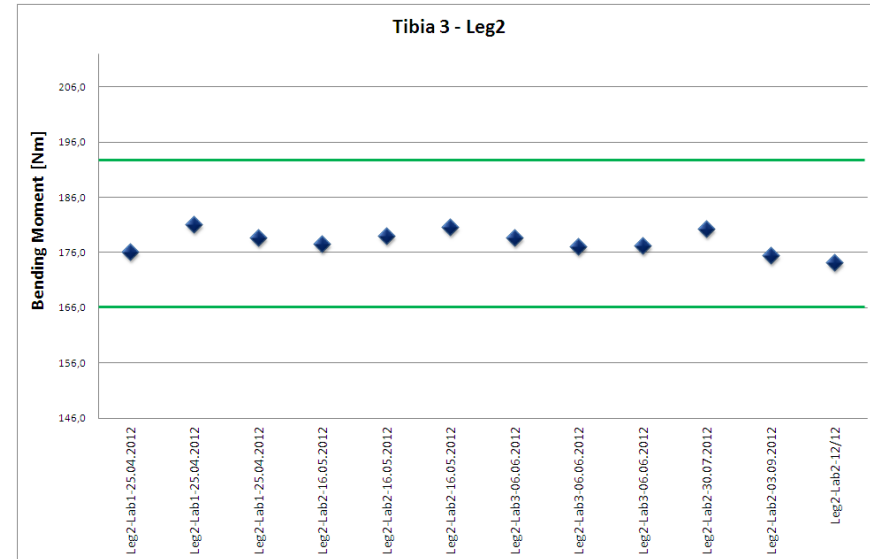
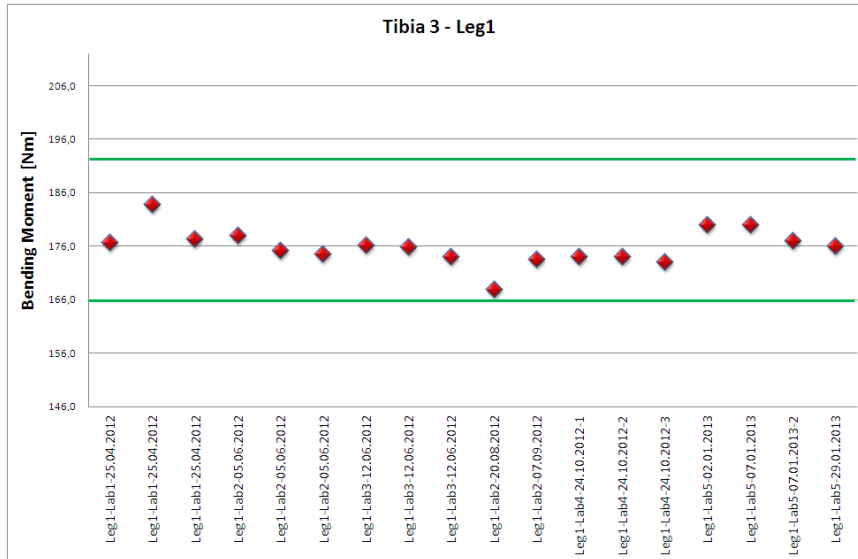
# Results Tibia 2 - Inverse Tests



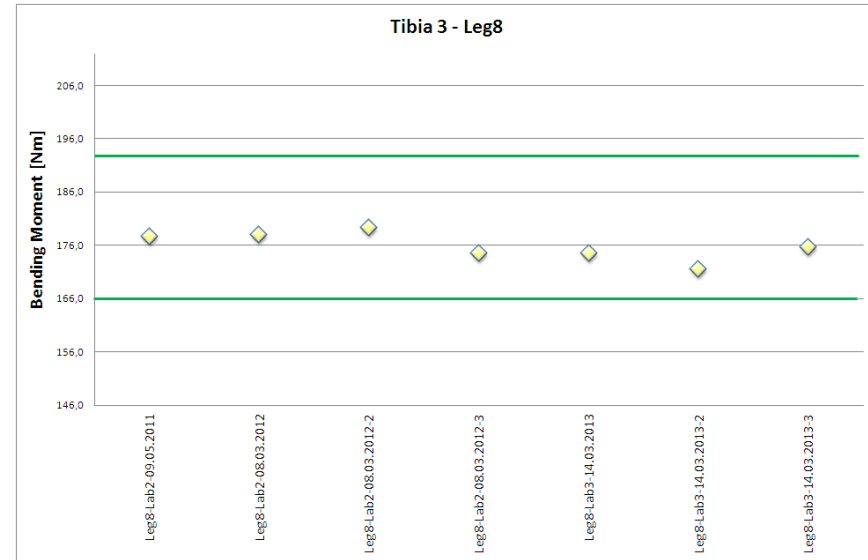
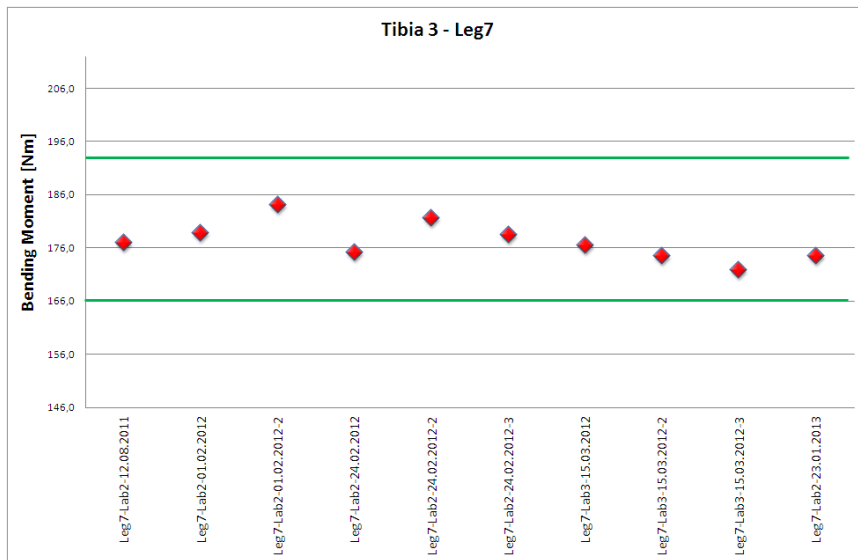
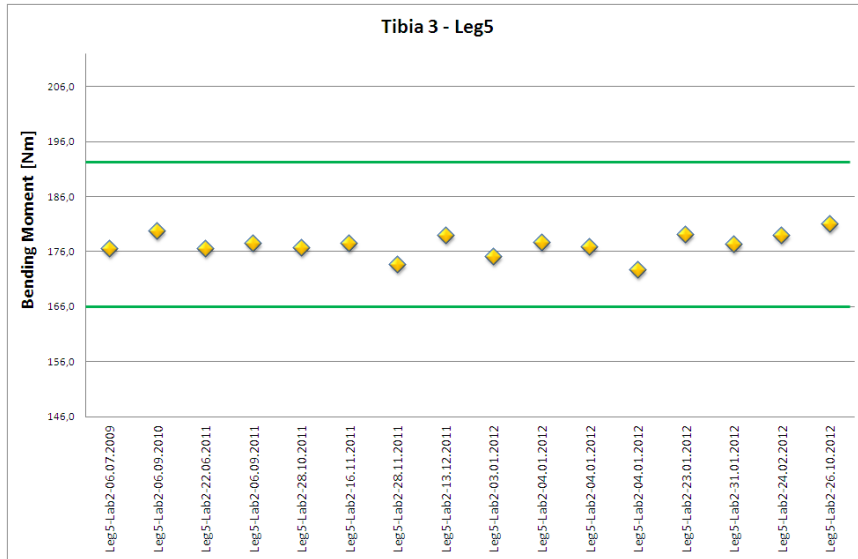
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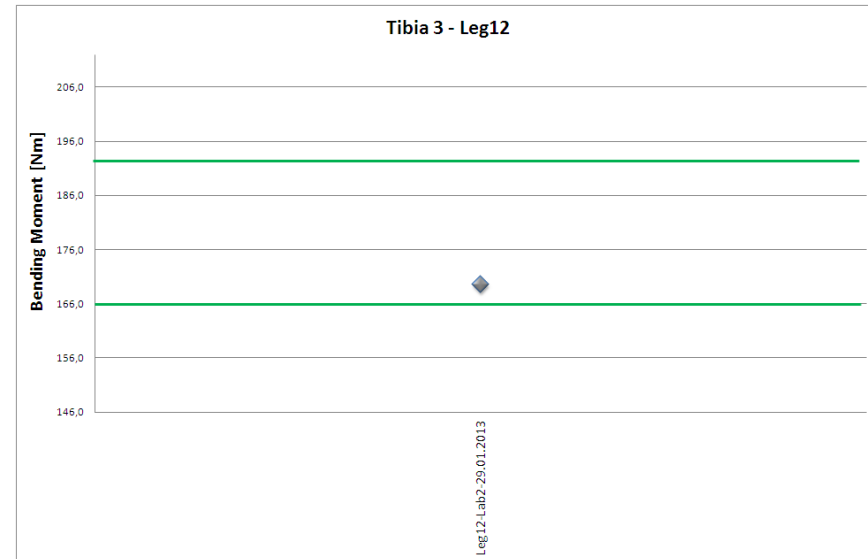
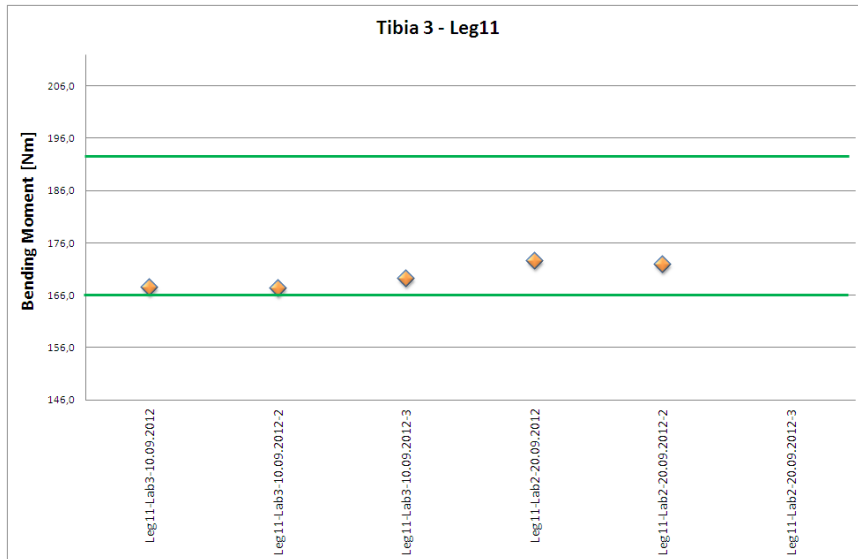
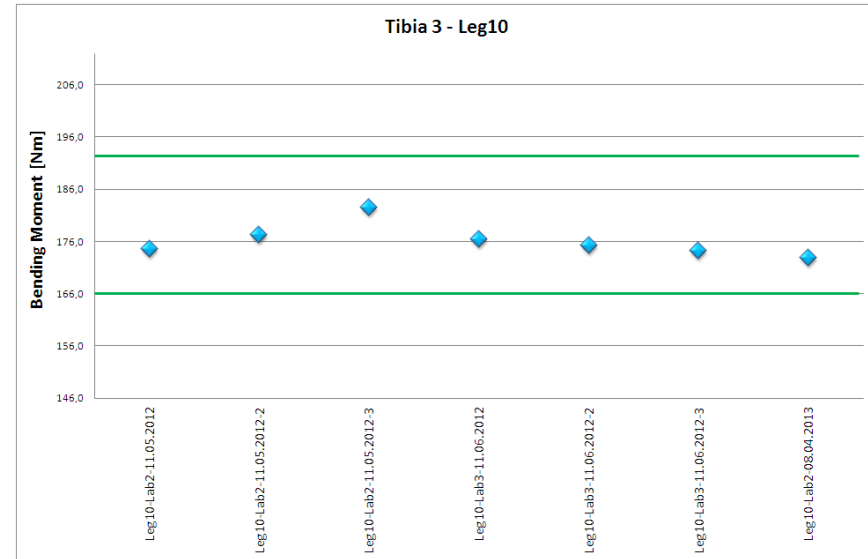
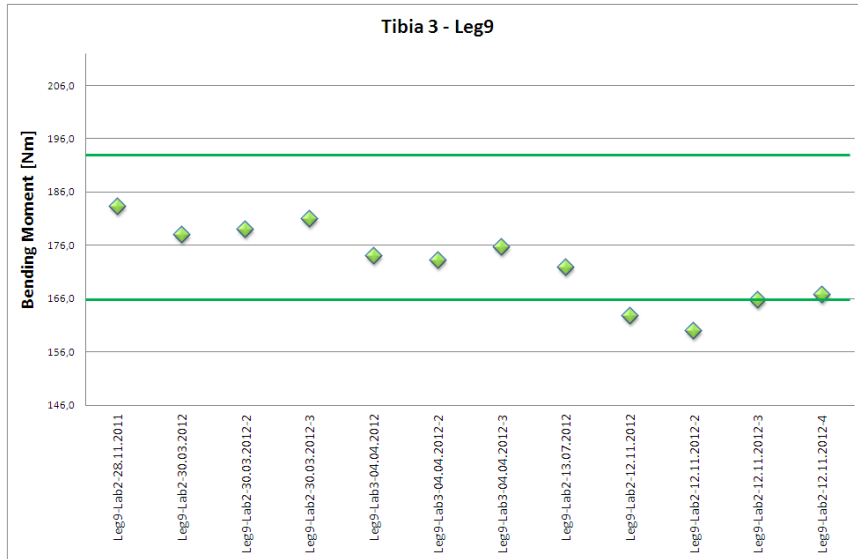
# Results Tibia 3 - Inverse Tests



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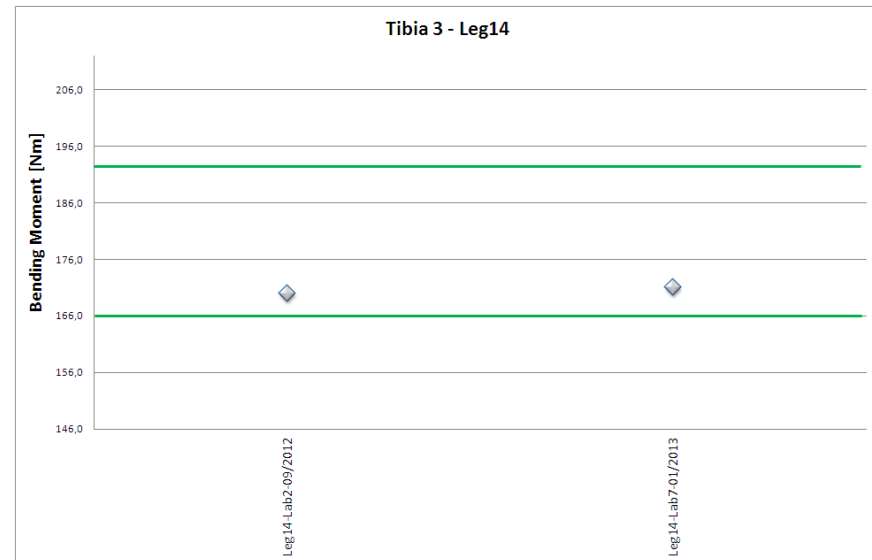


# Results Tibia 3 - Inverse Tests

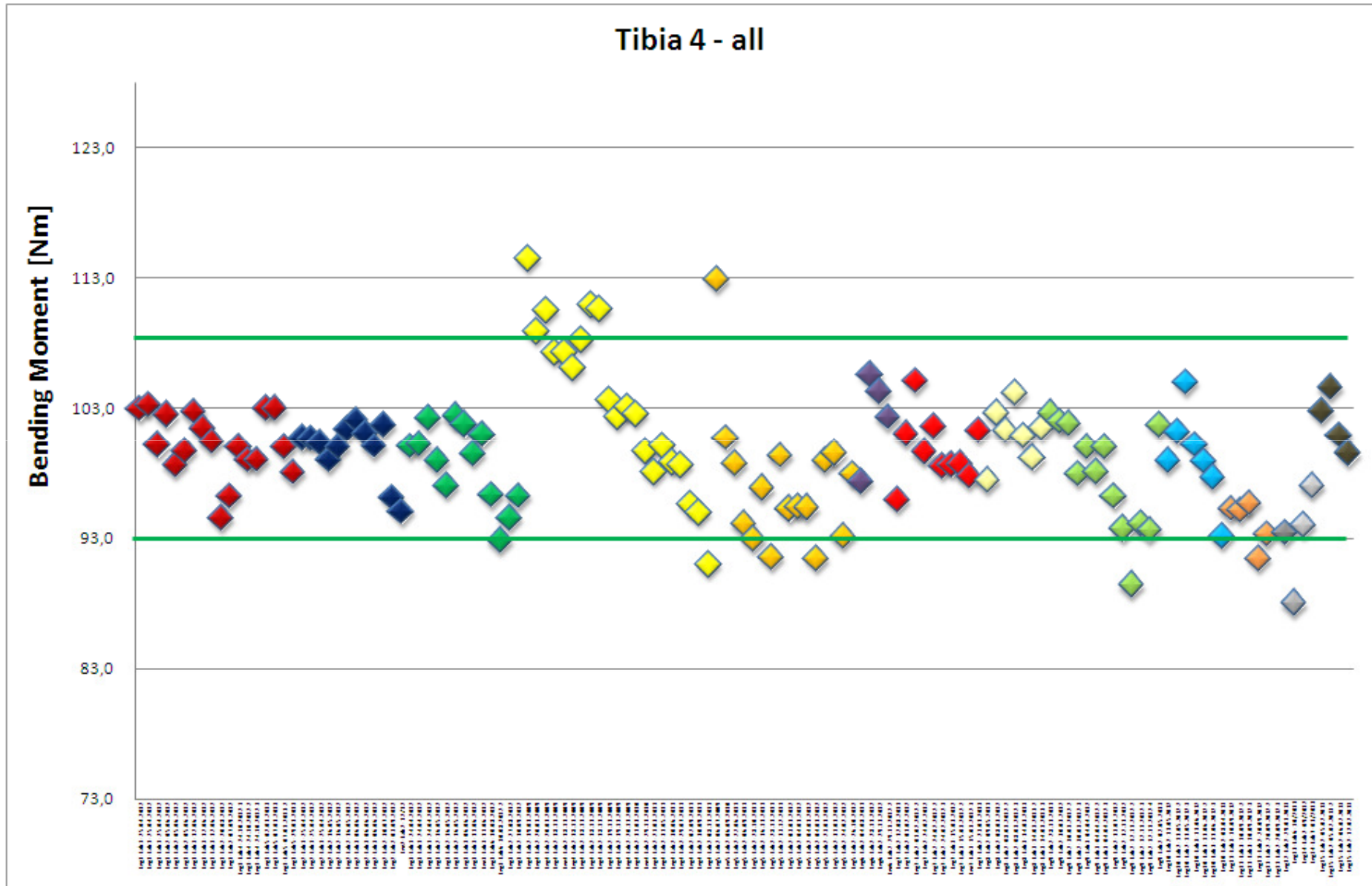




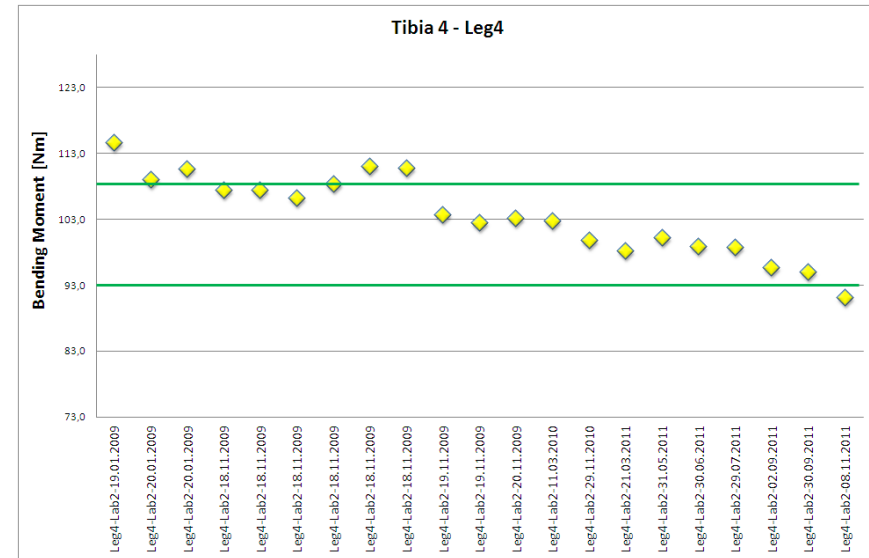
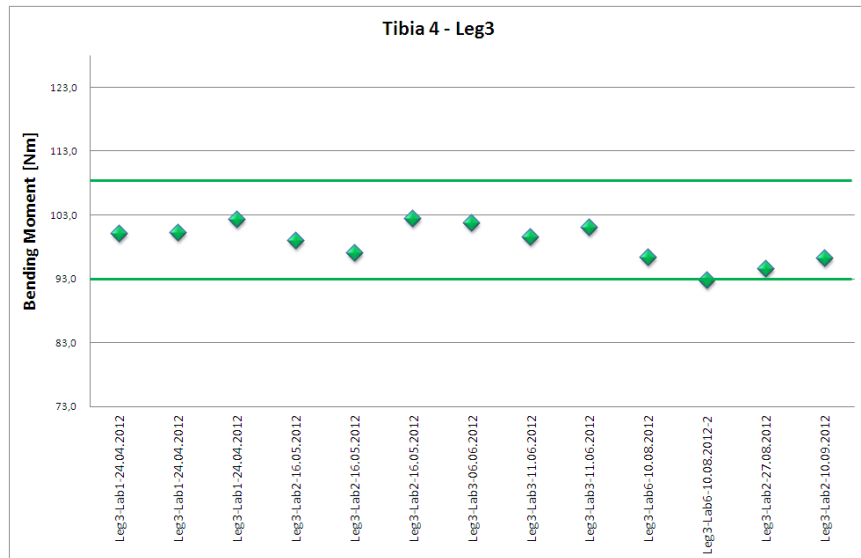
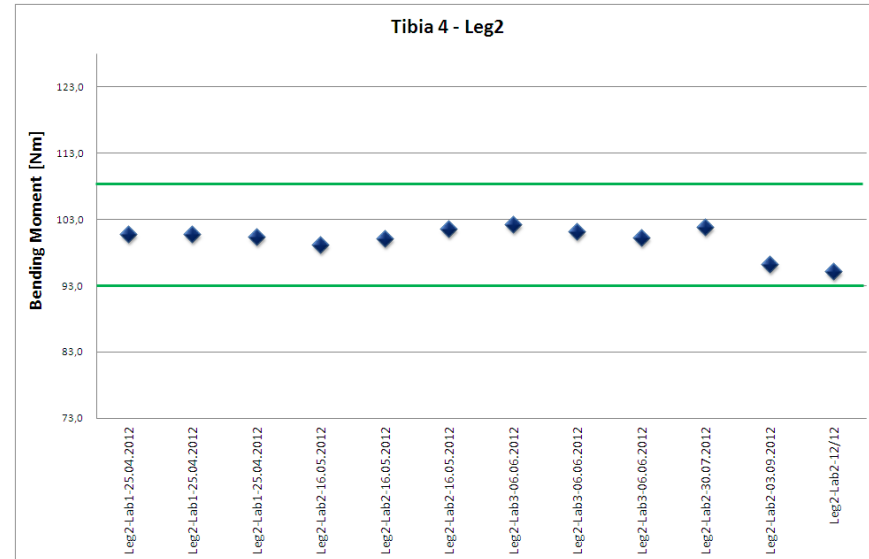
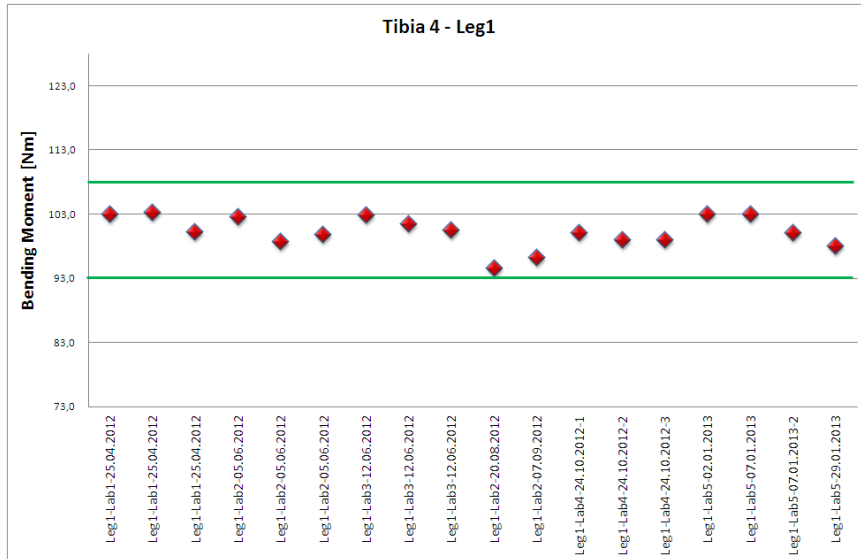
# Results Tibia 3 - Inverse Tests



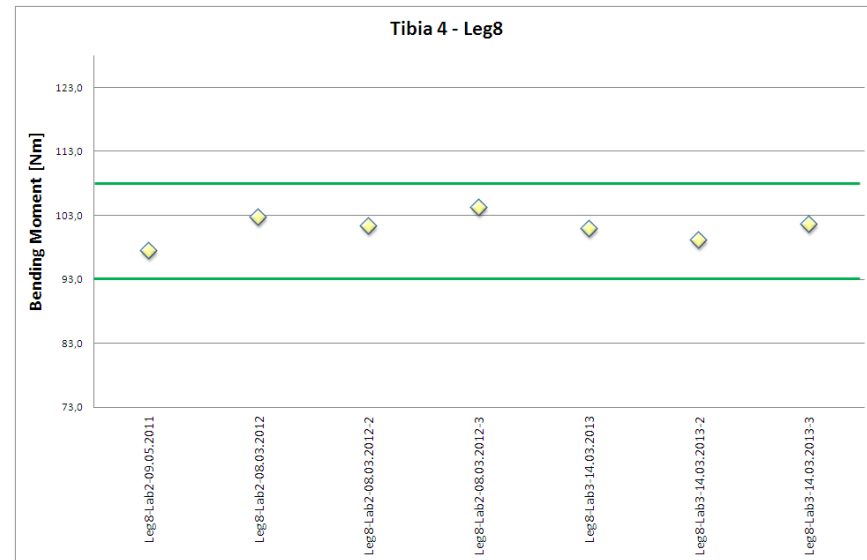
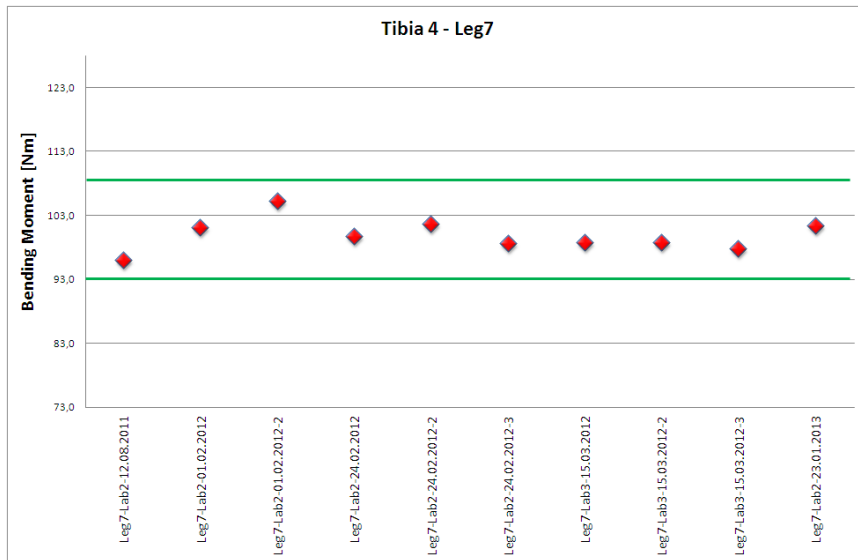
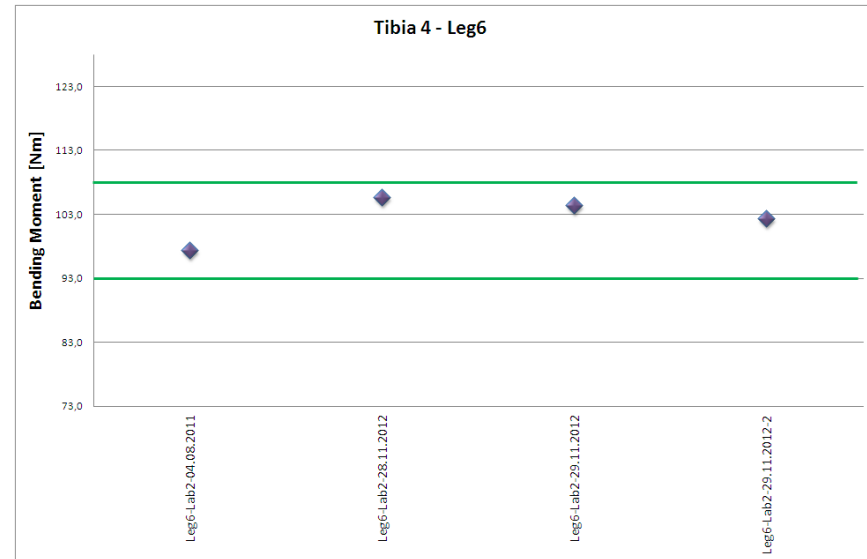
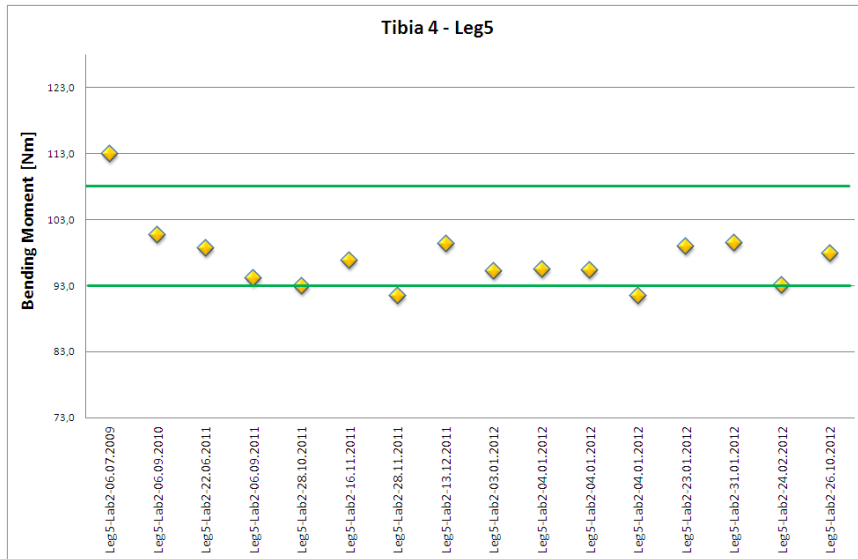
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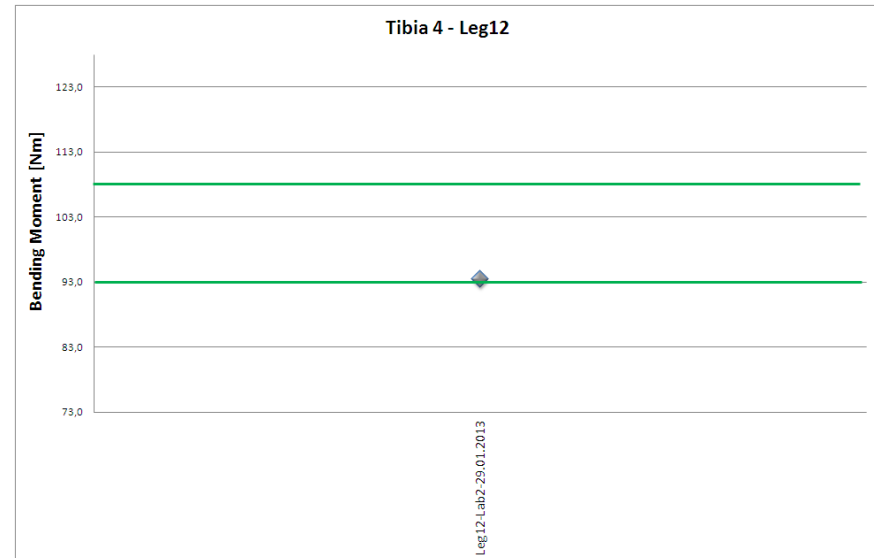
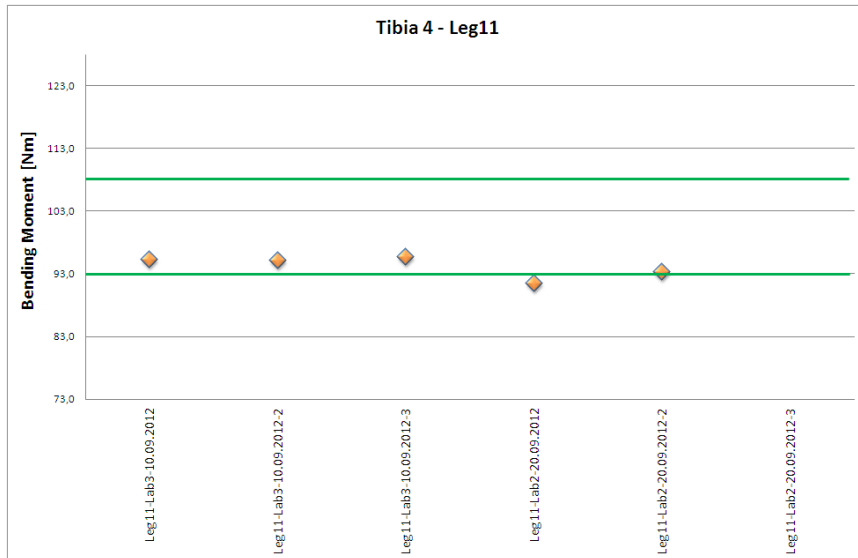
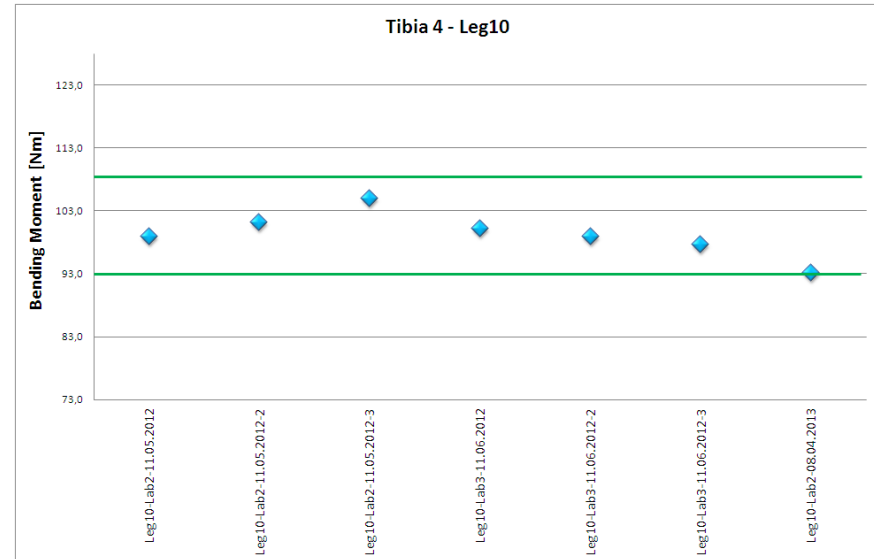
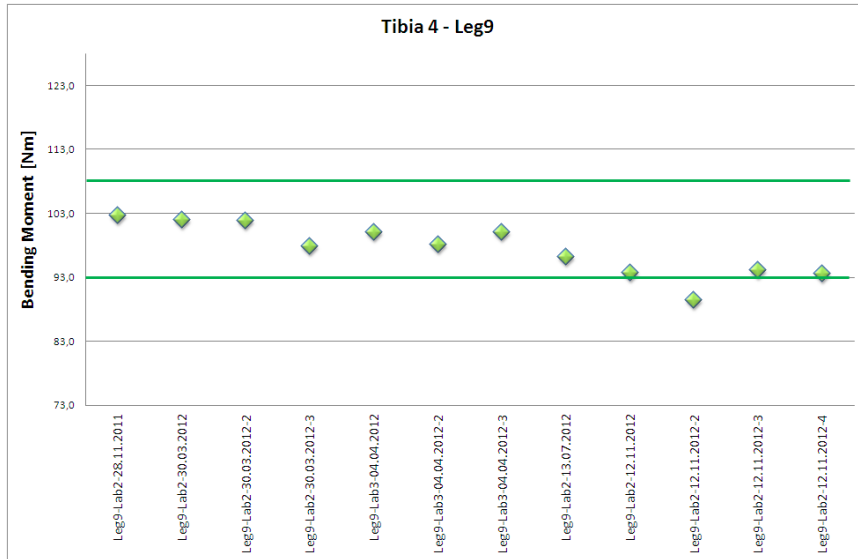
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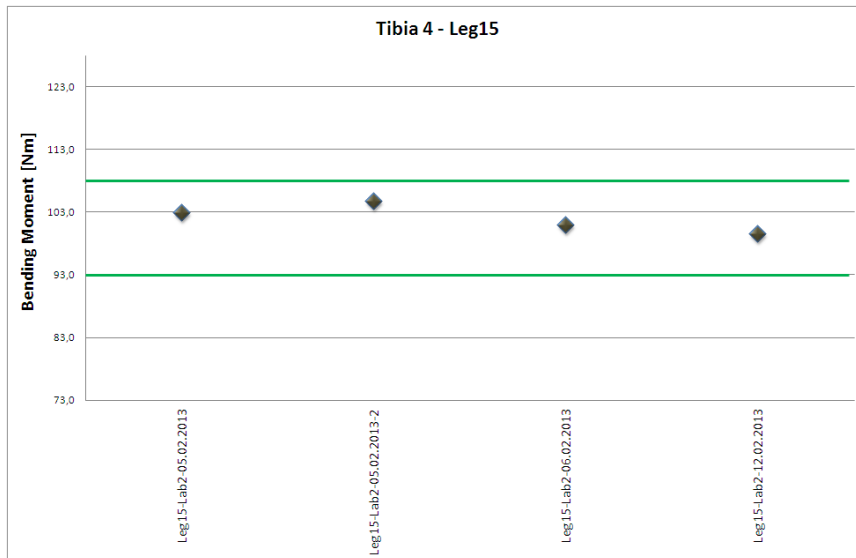
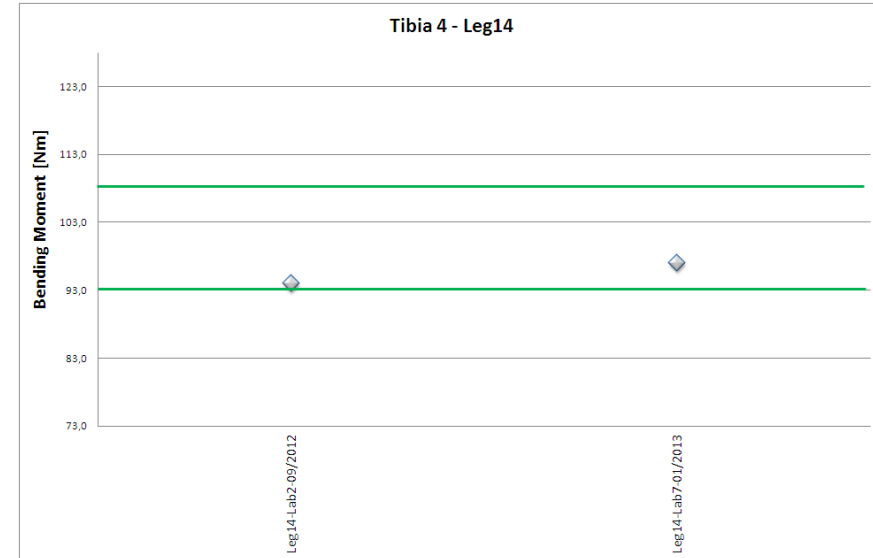
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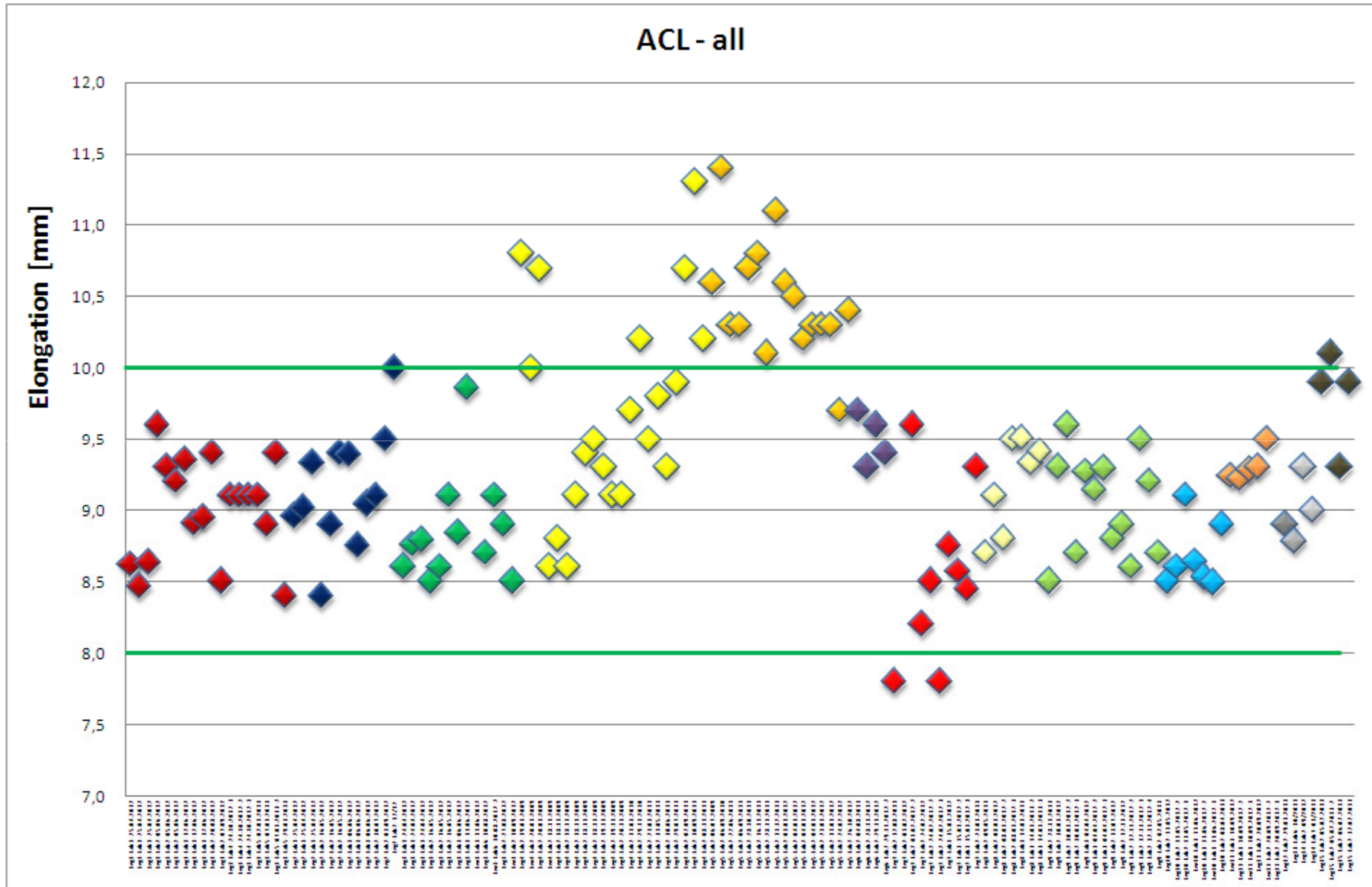
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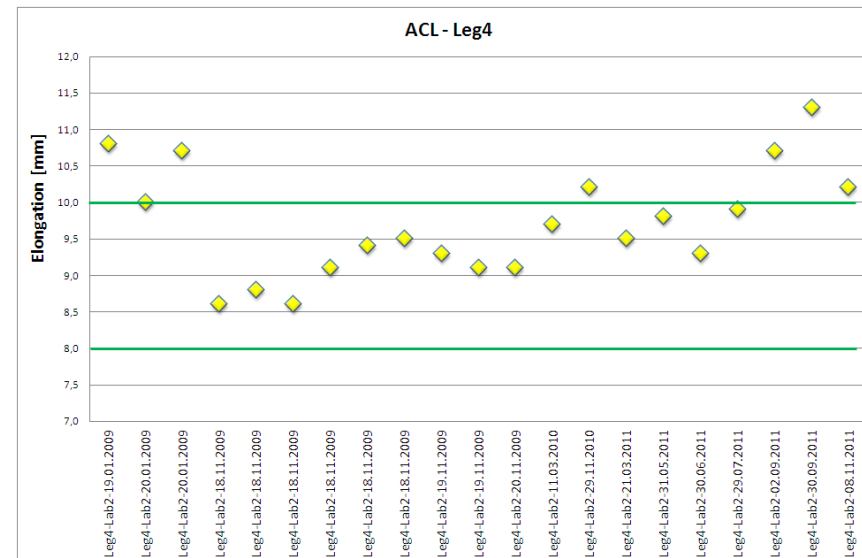
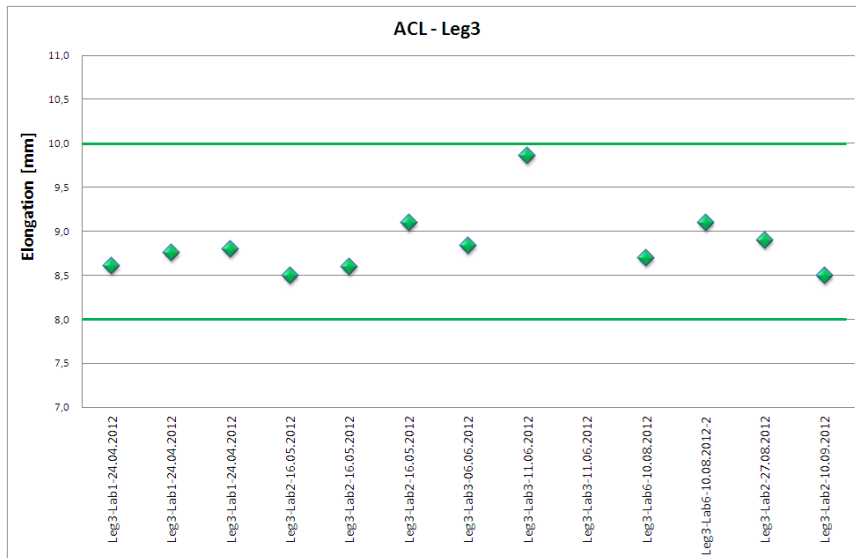
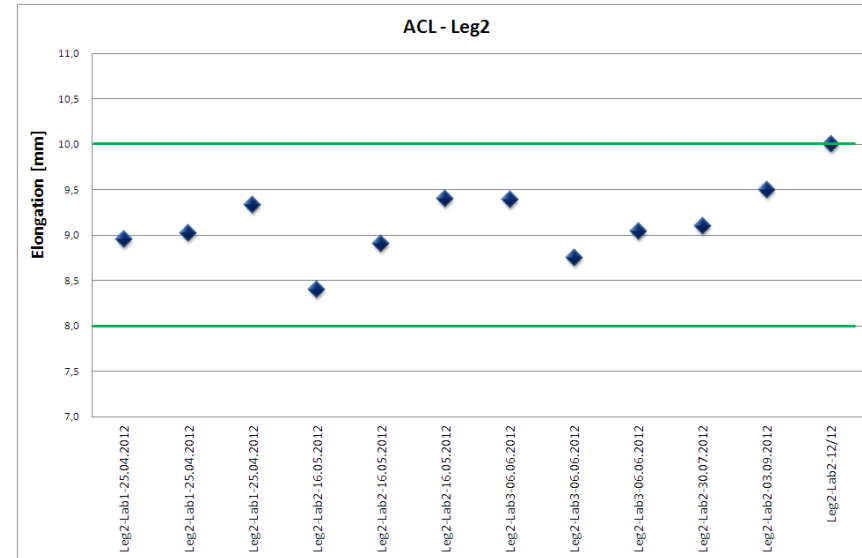
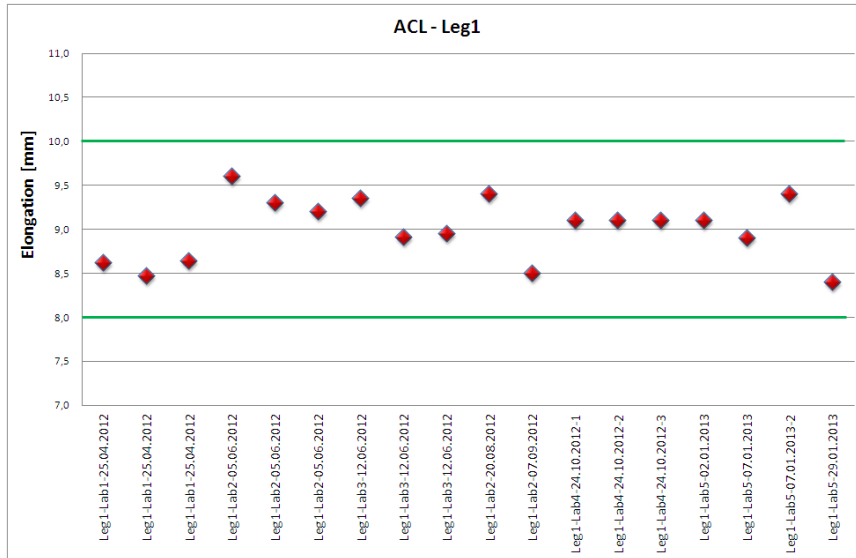
# Results Tibia 4 - Inverse Tests



# Results Overview - Inverse Tests ACL

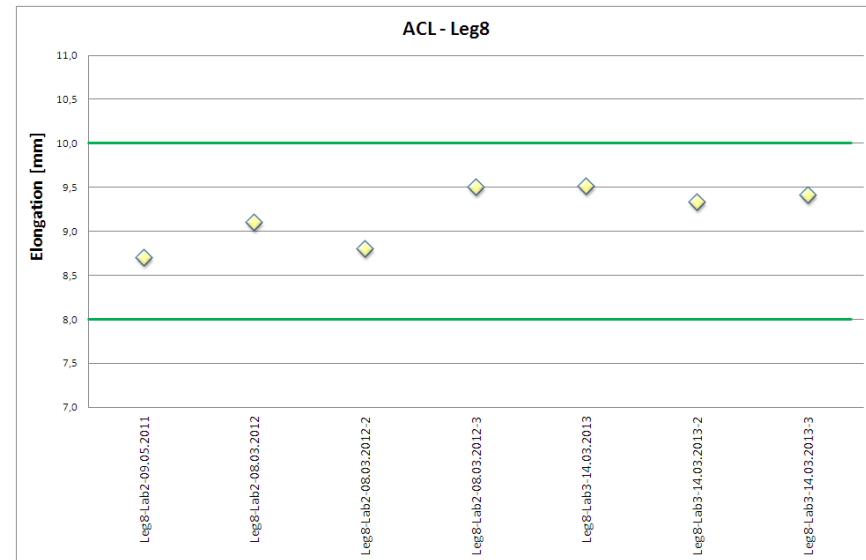
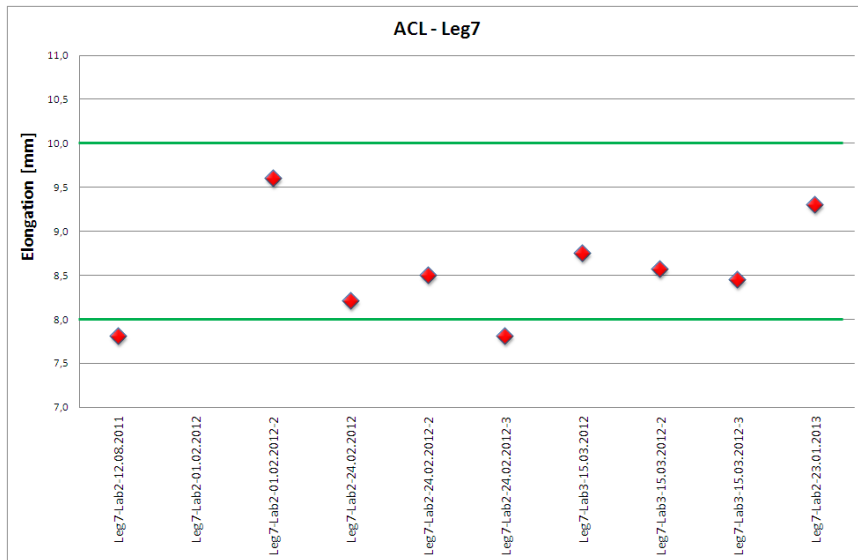
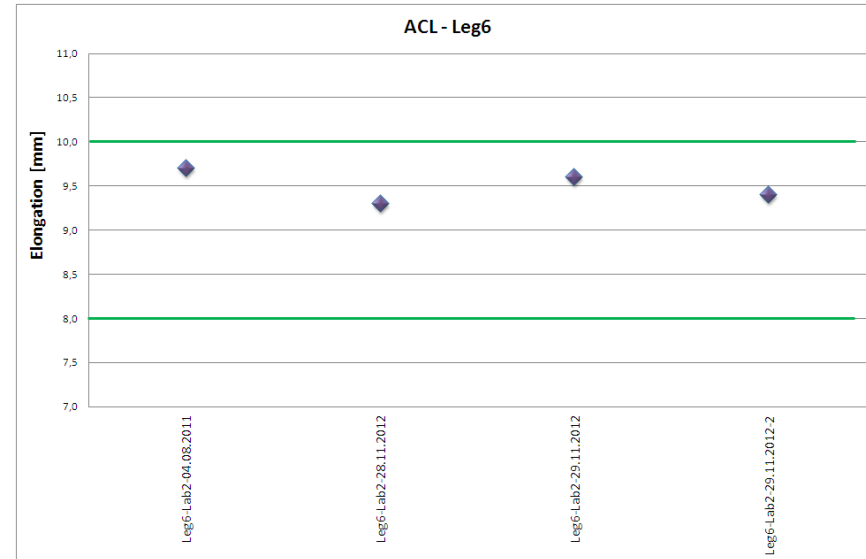
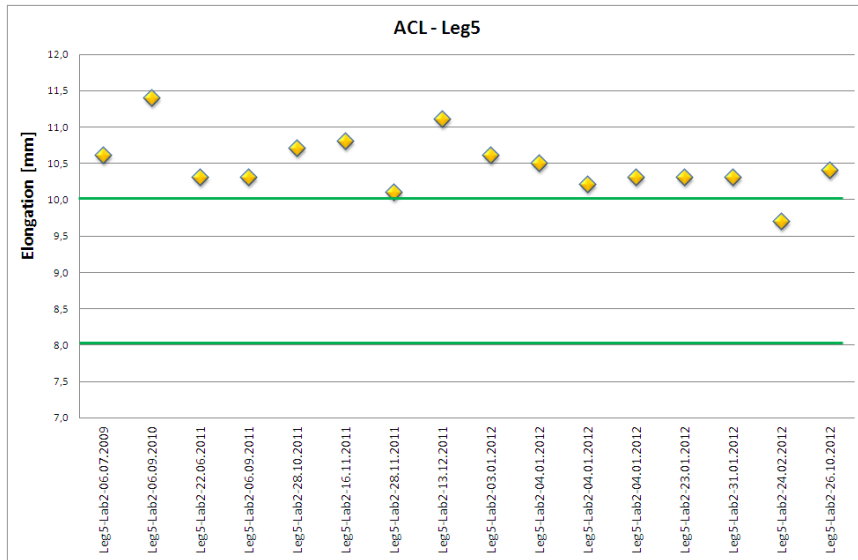


# Results ACL - Inverse Tests

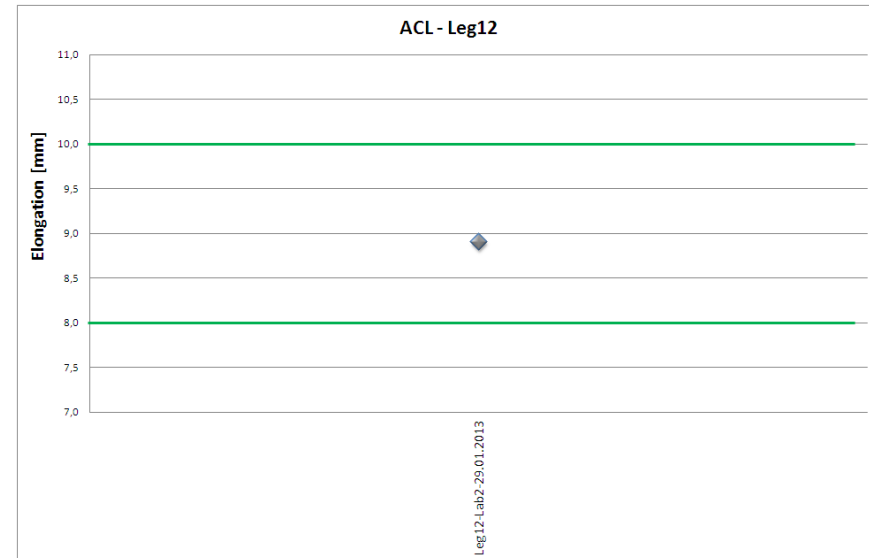
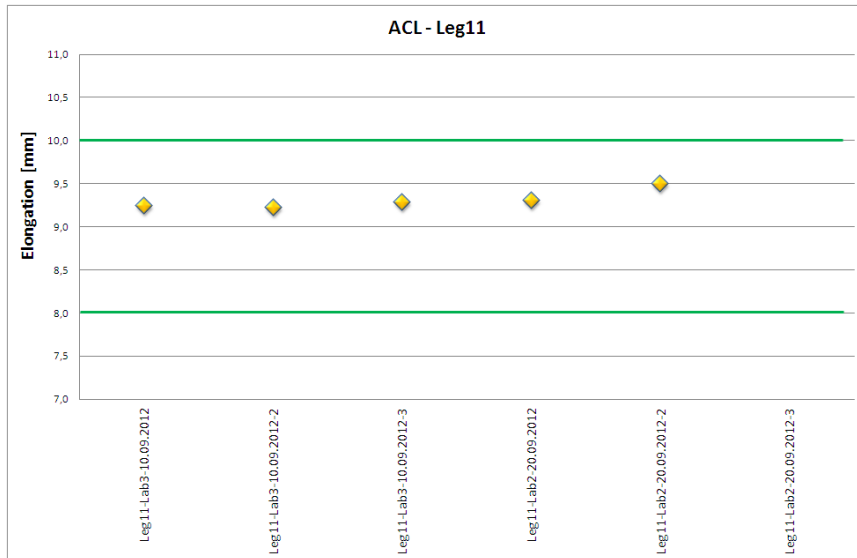
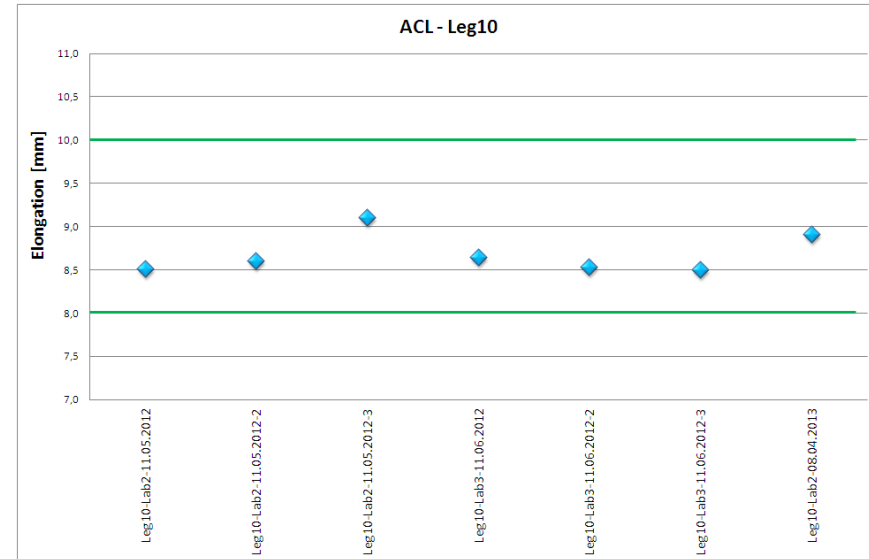
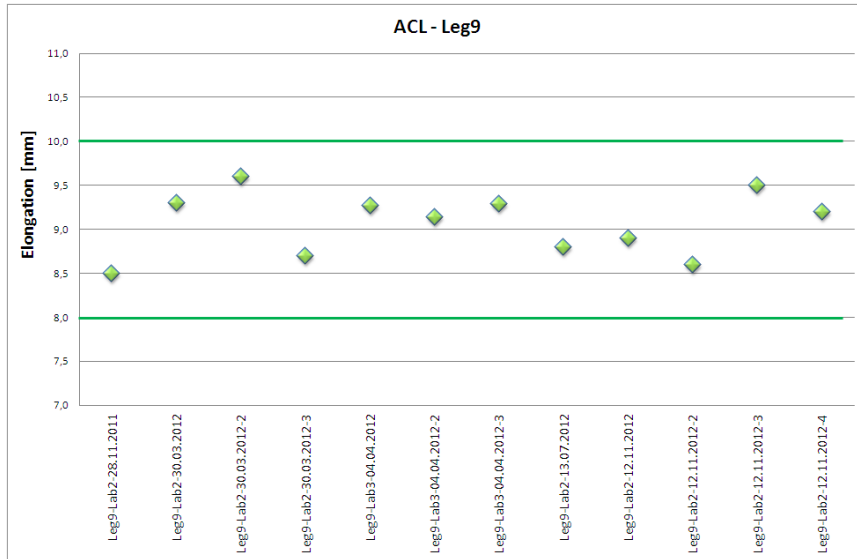




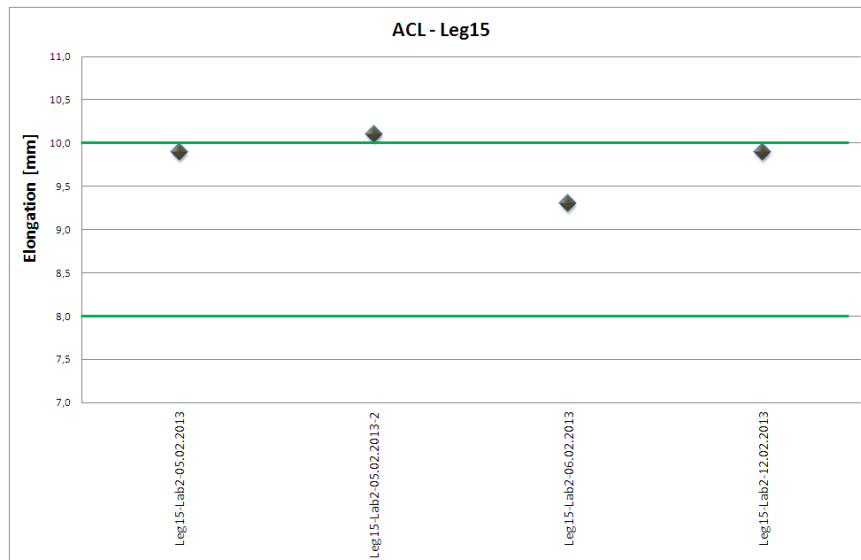
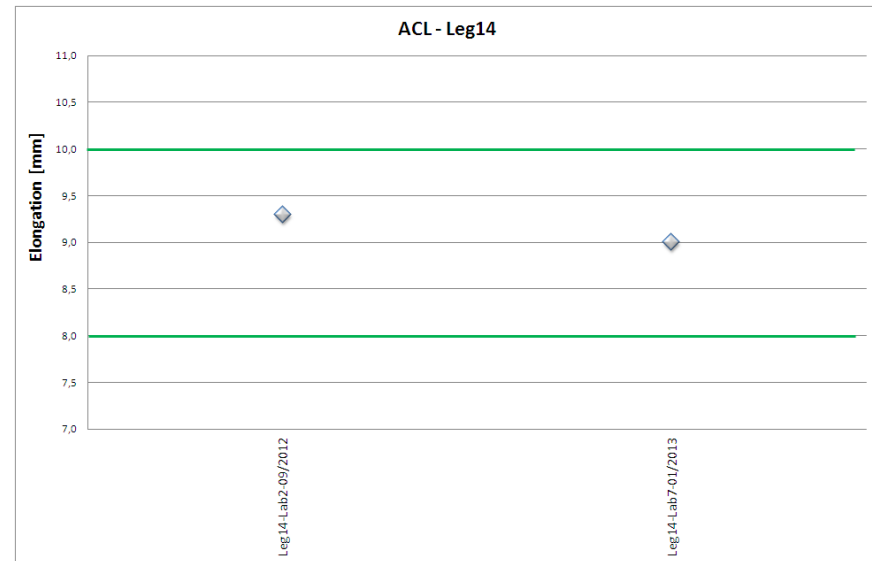
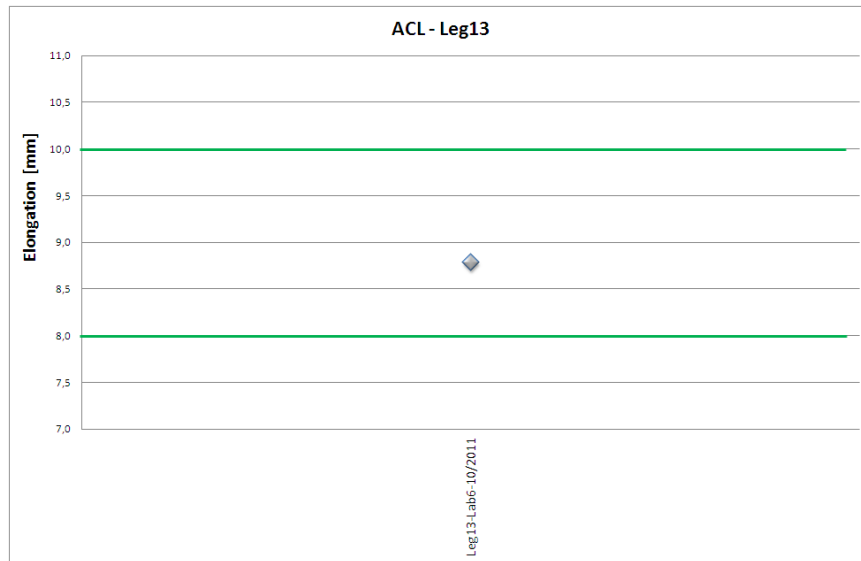
# Results ACL - Inverse Tests



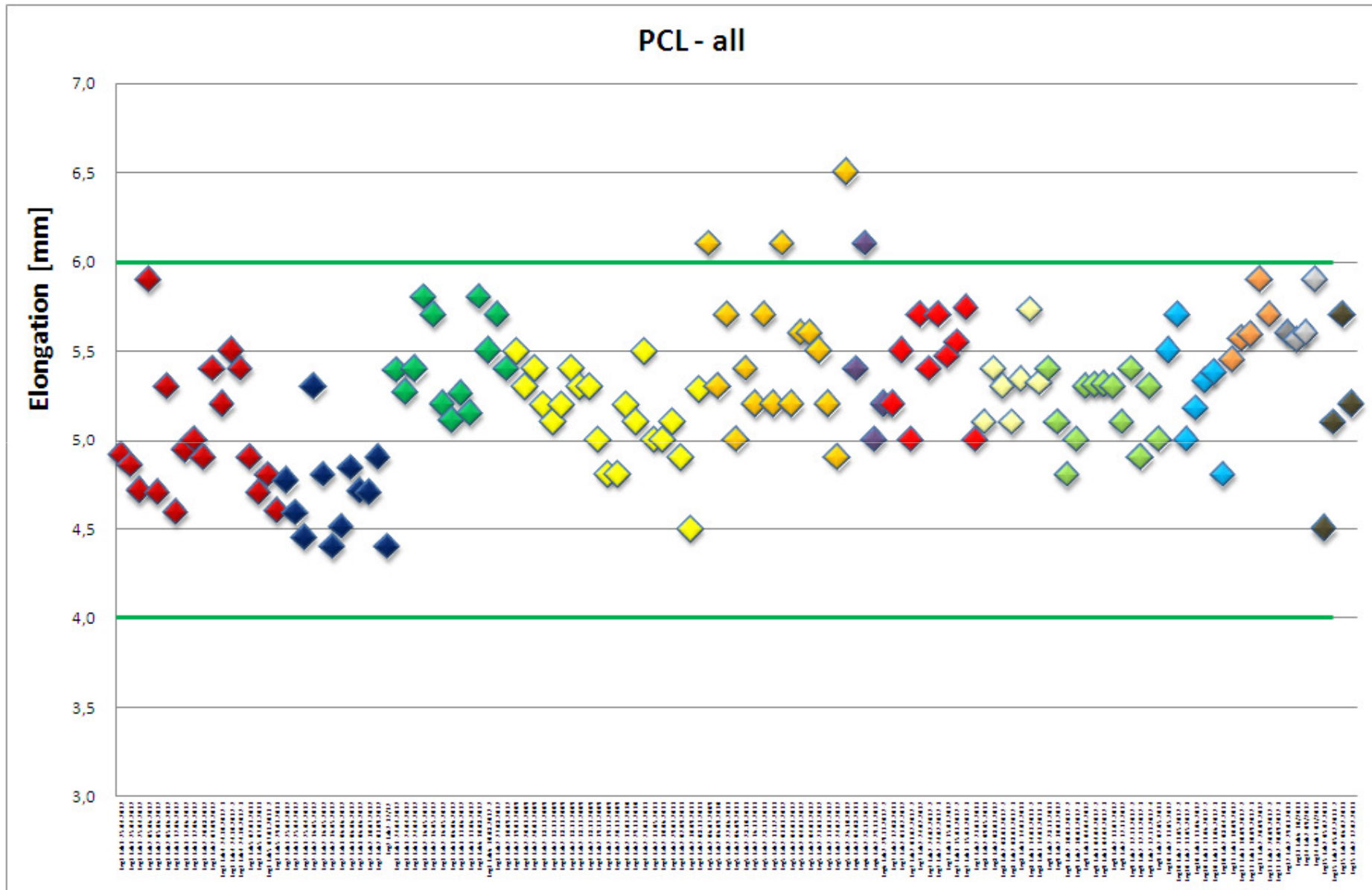
# Results ACL - Inverse Tests



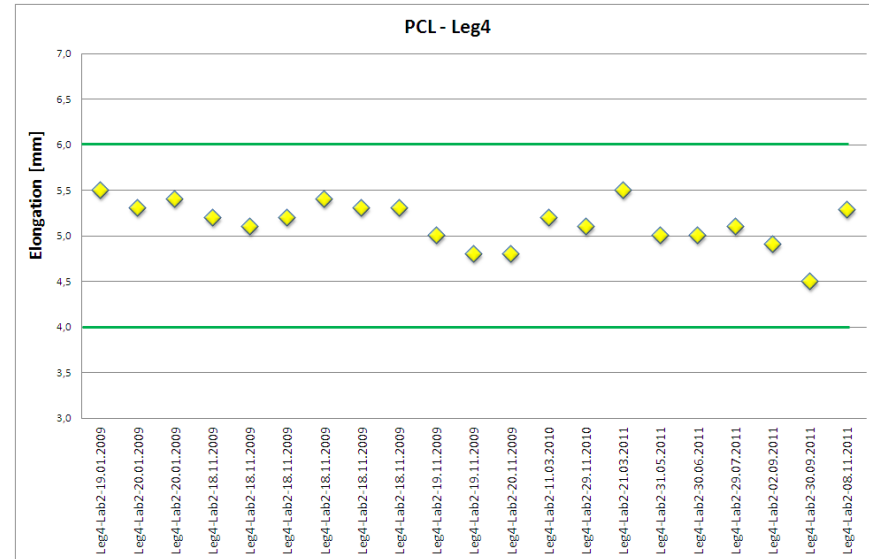
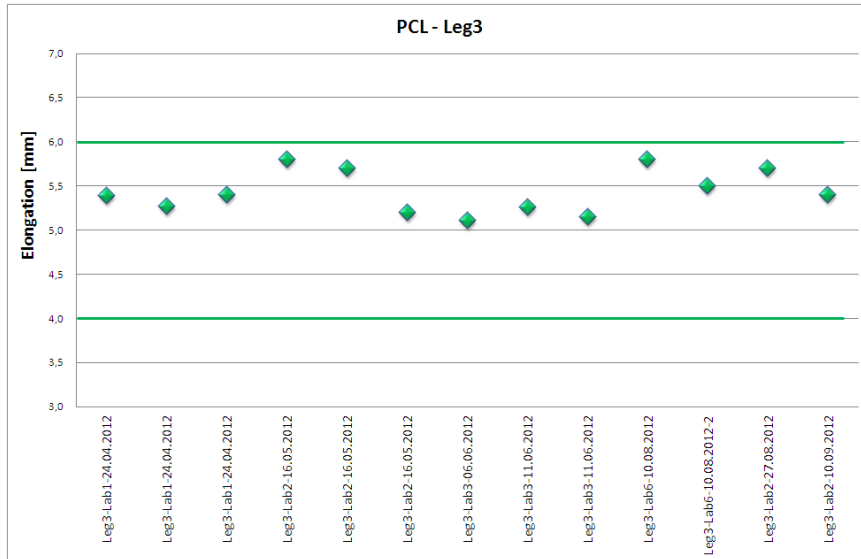
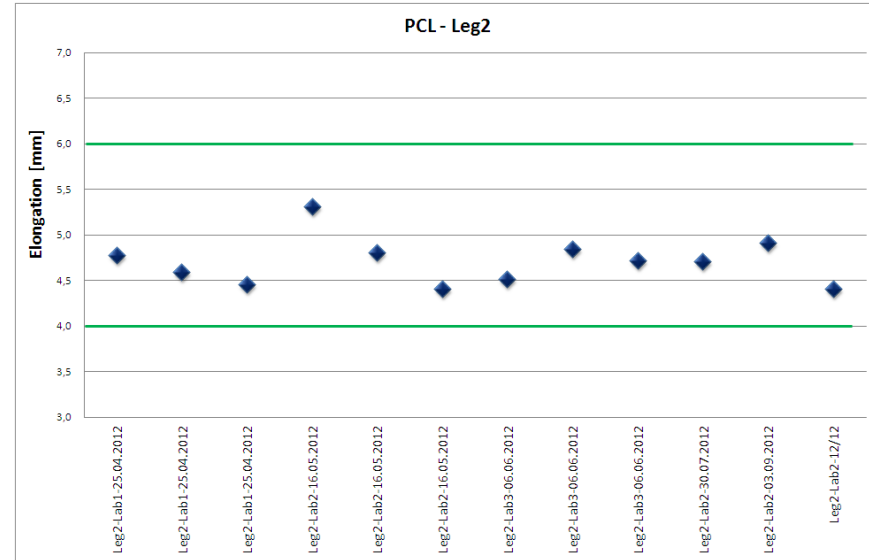
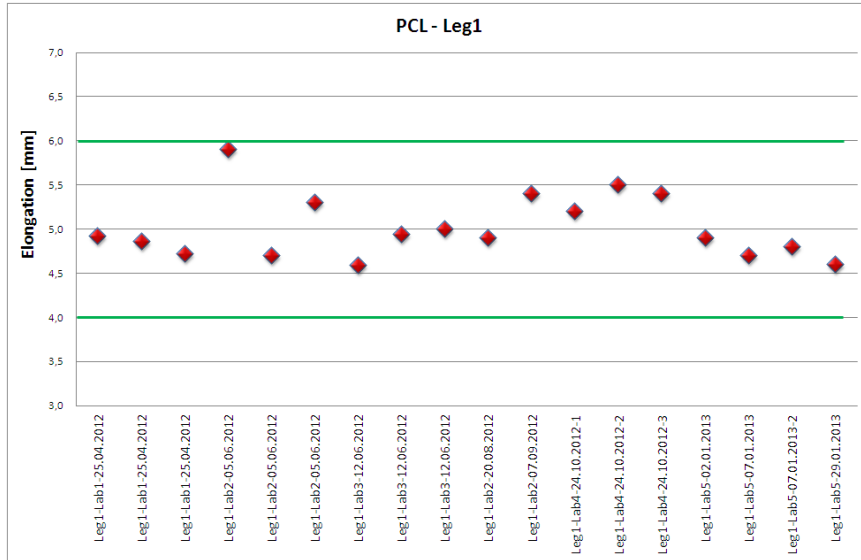
# Results ACL - Inverse Tests



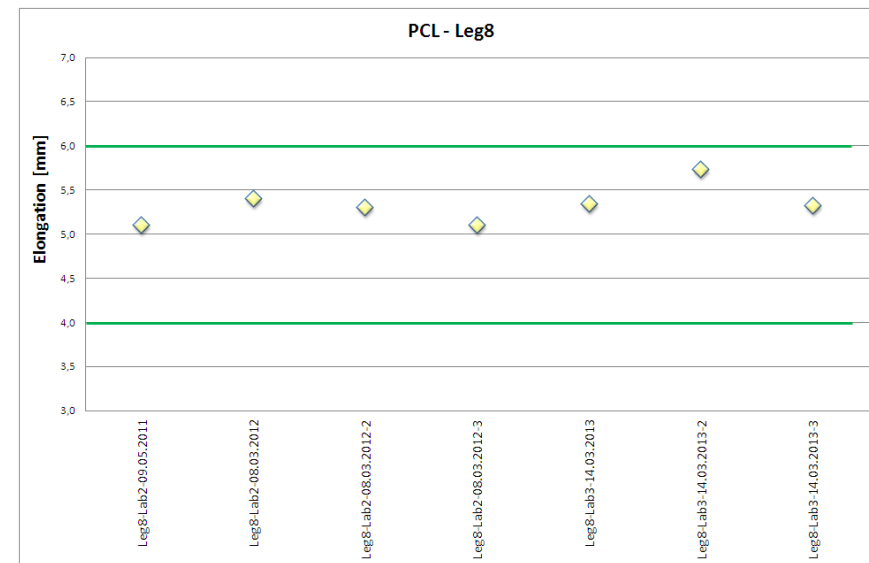
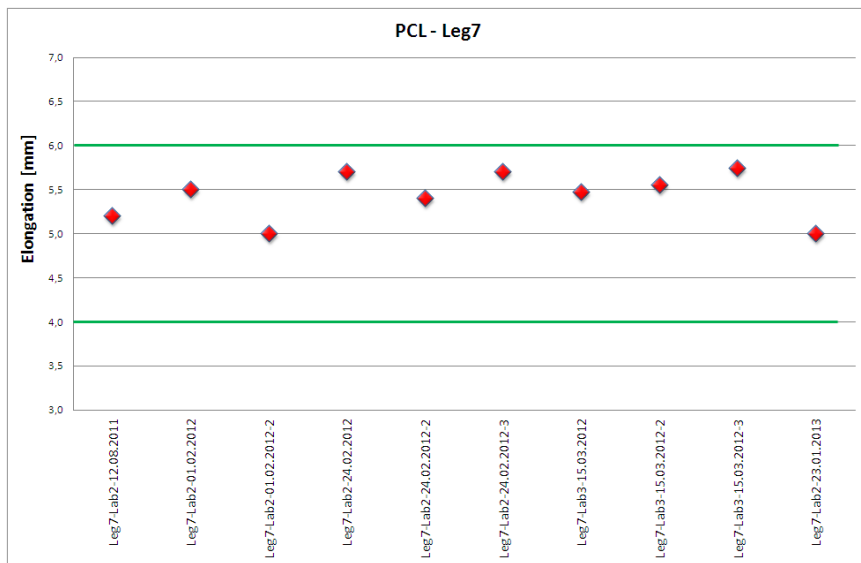
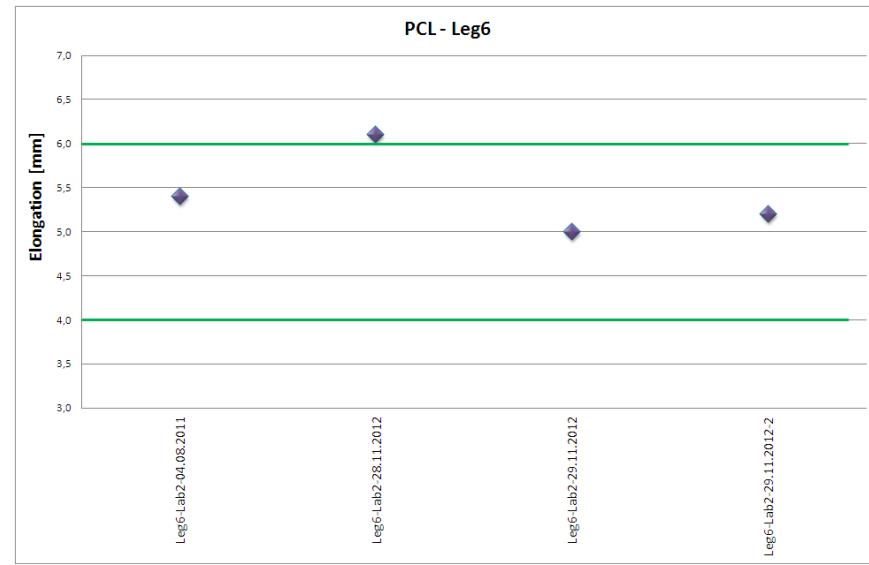
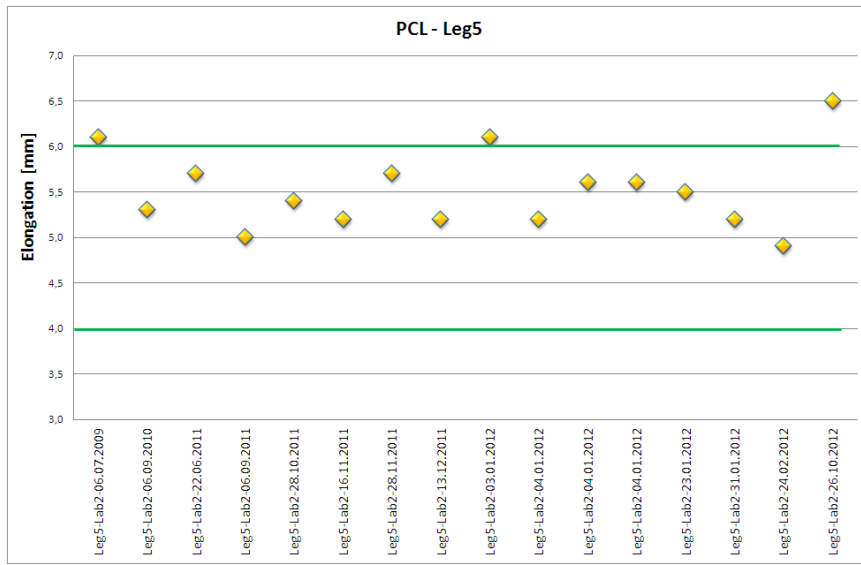
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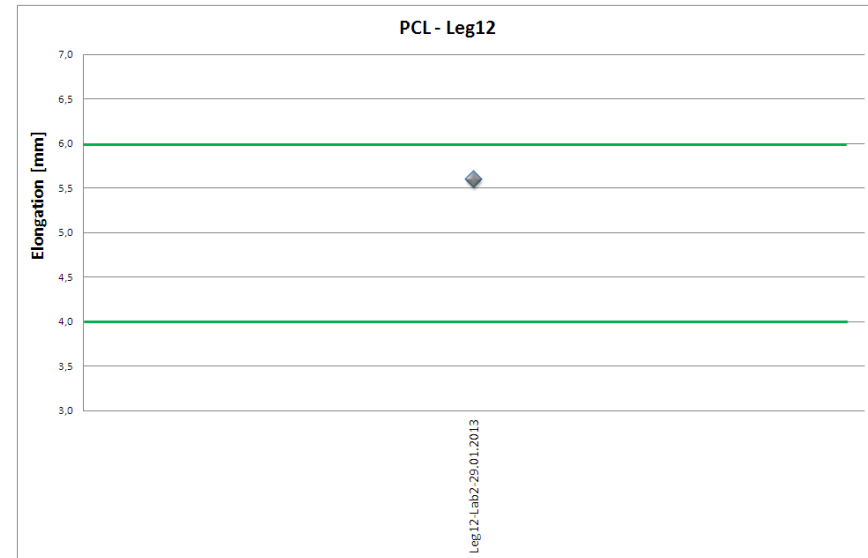
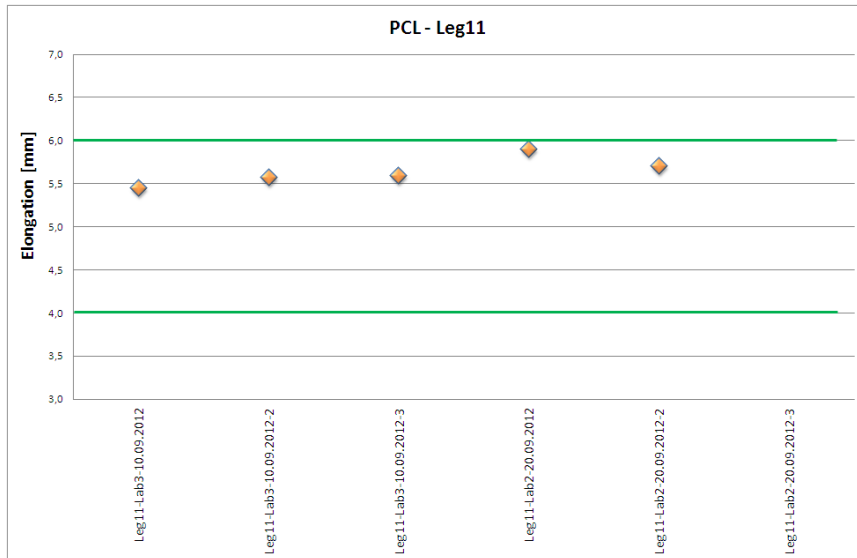
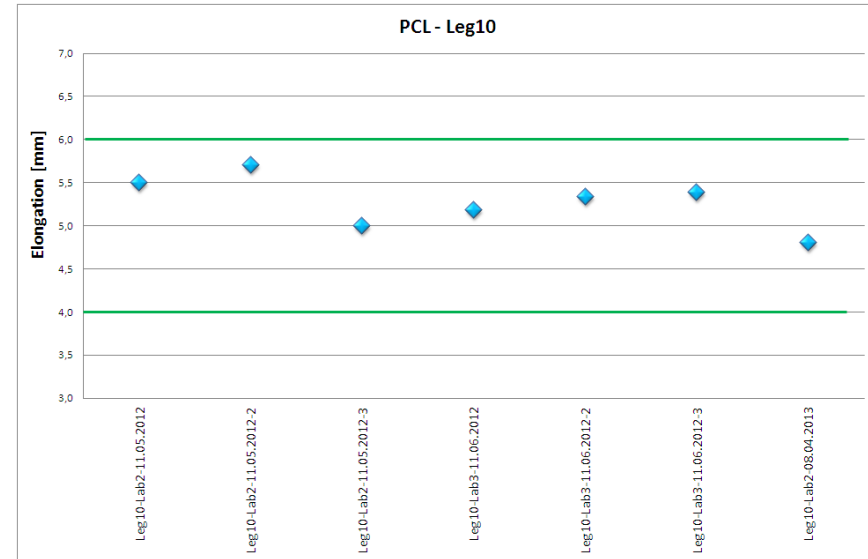
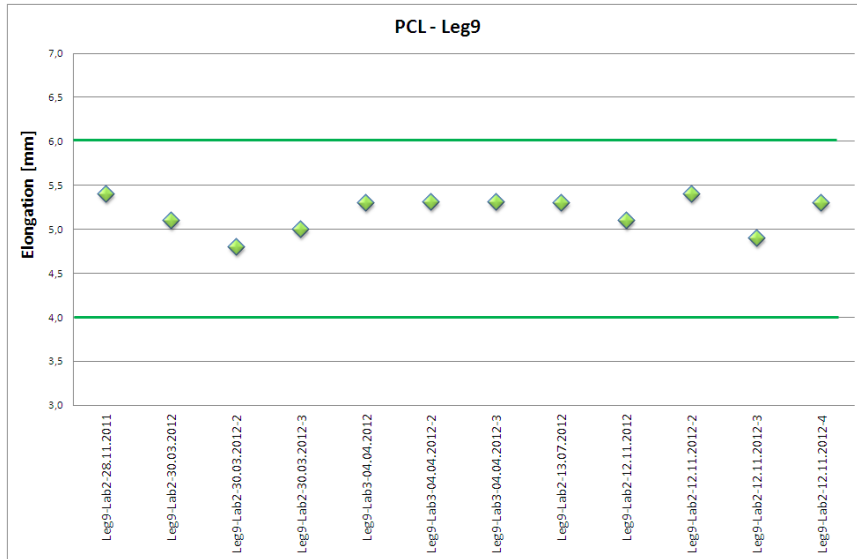
# Results PCL - Inverse Tests



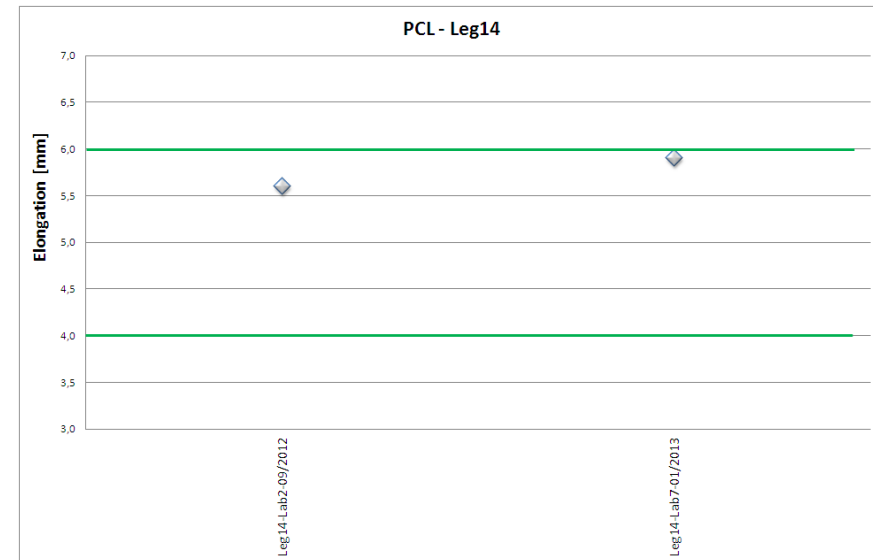
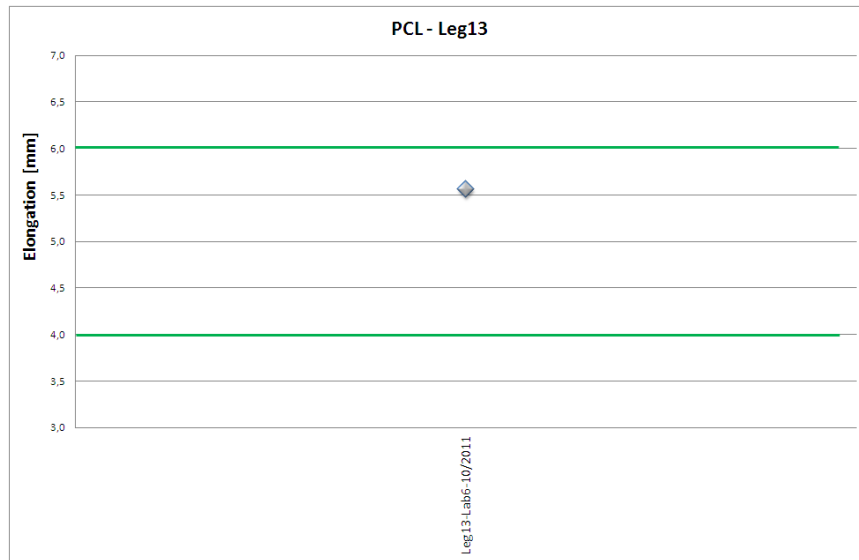
# Results PCL - Inverse Tests



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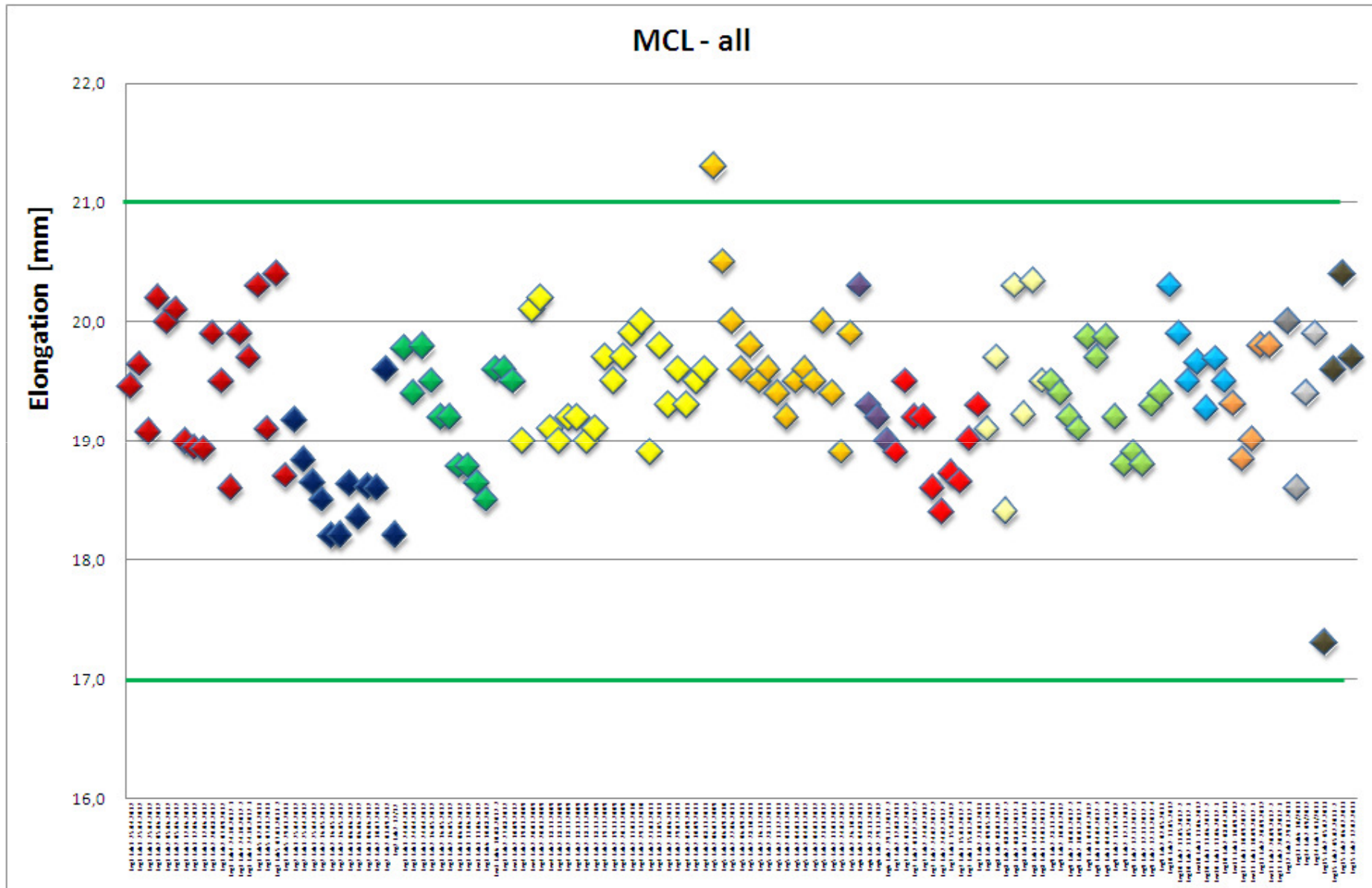


# Results PCL - Inverse Tests

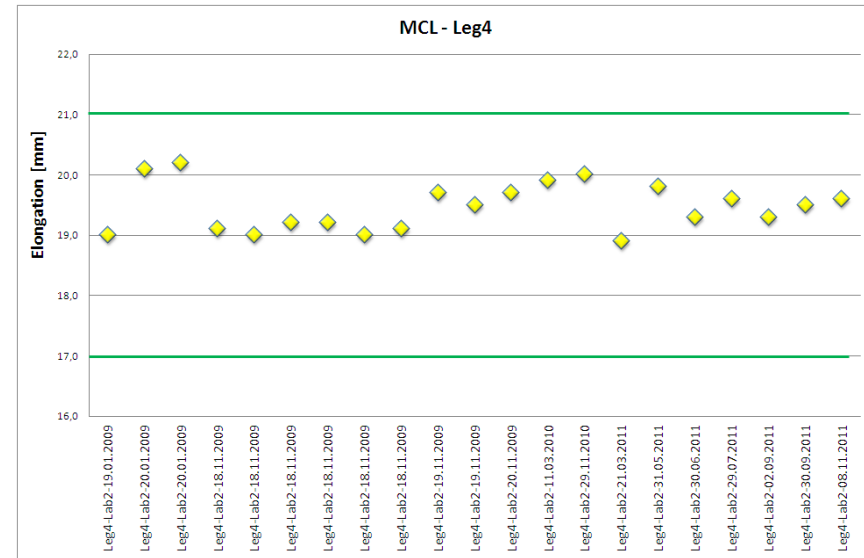
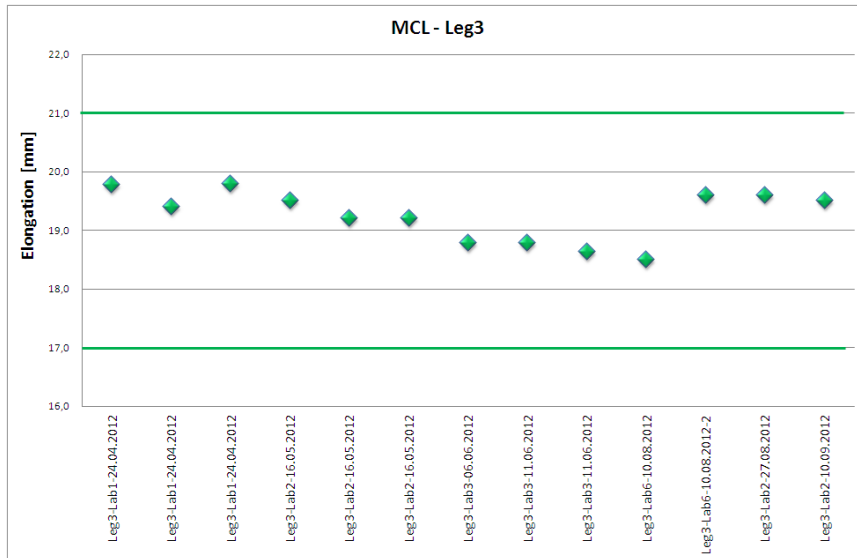
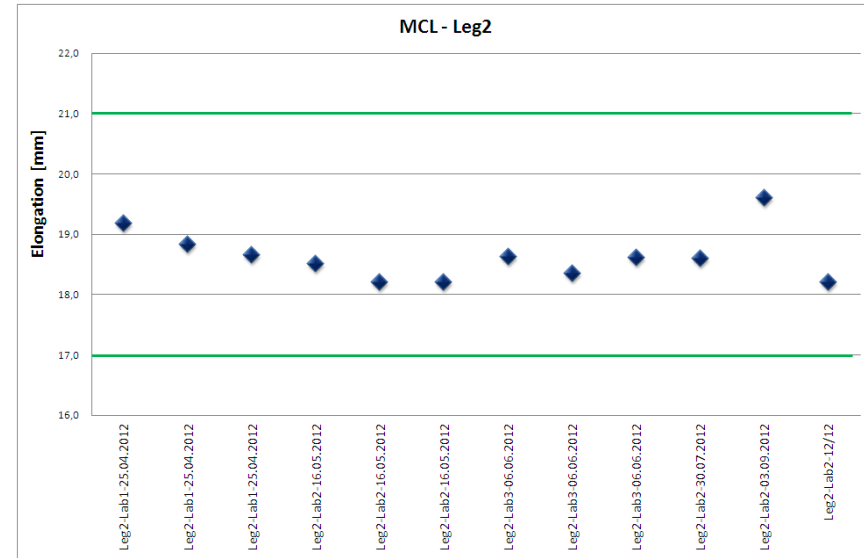
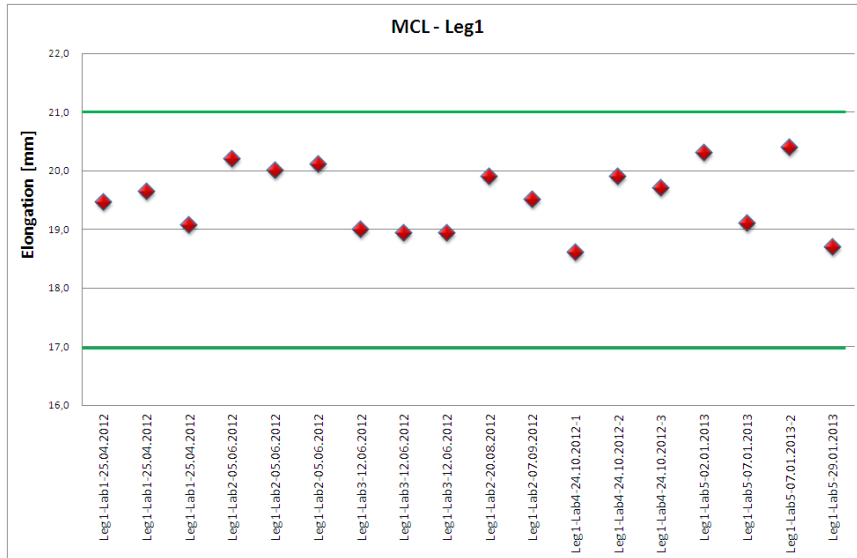




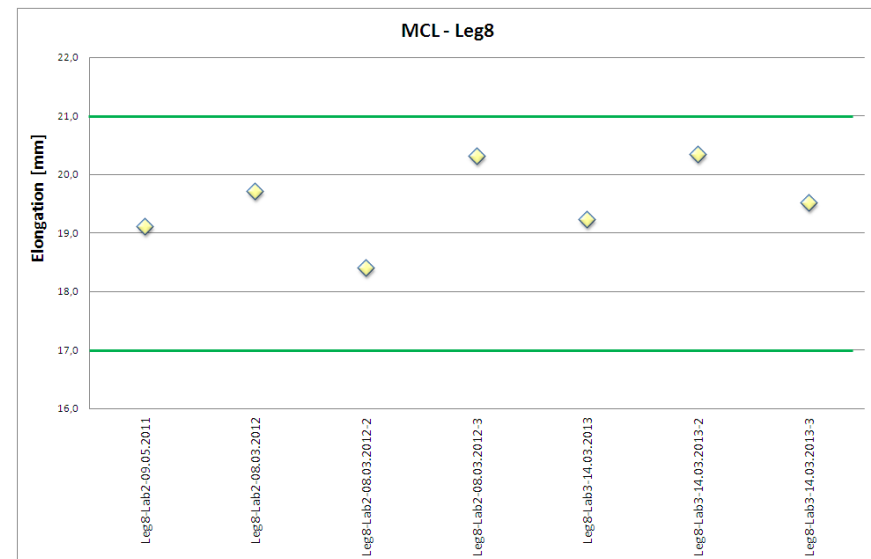
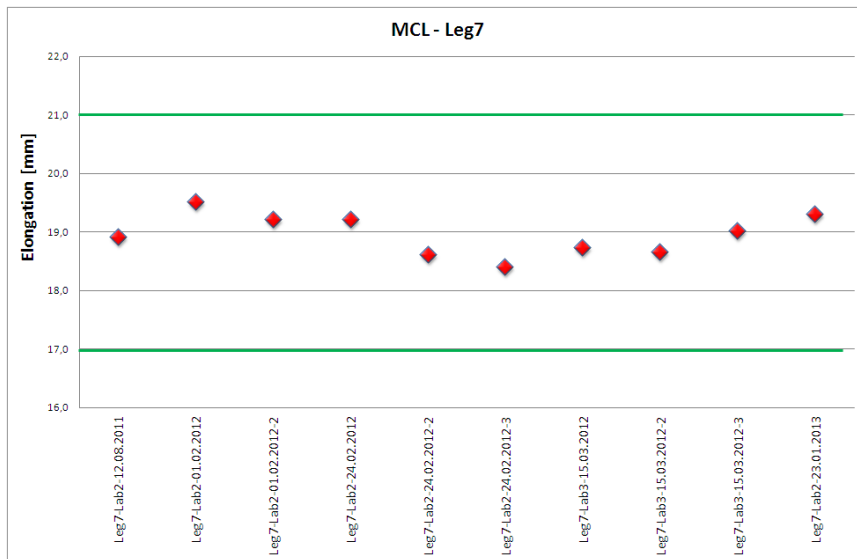
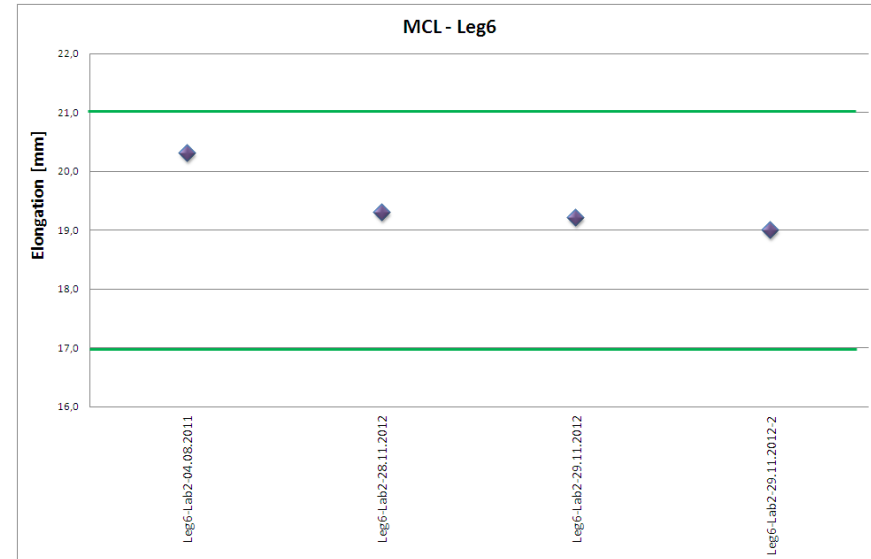
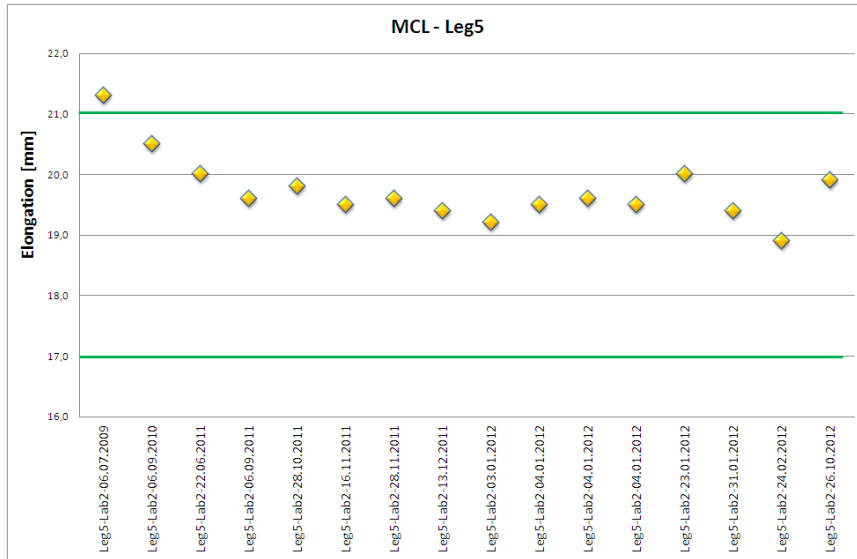
# Results Overview - Inverse Tests MCL



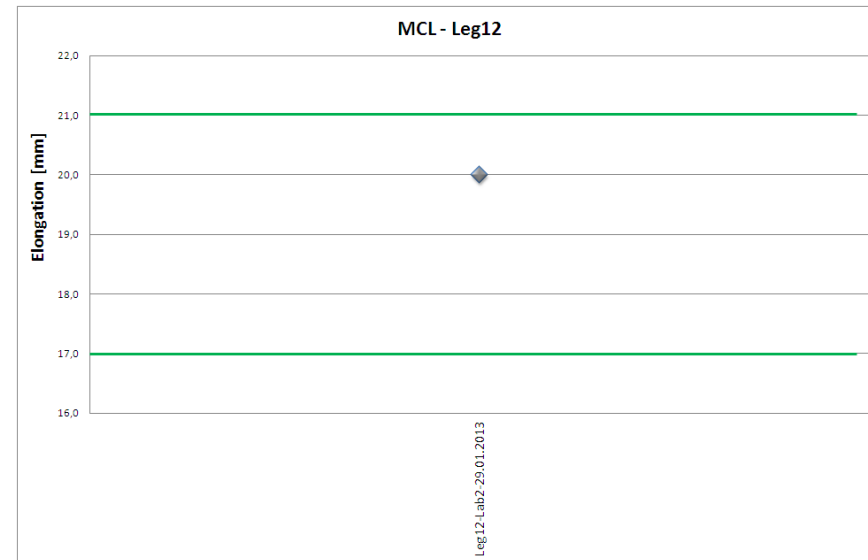
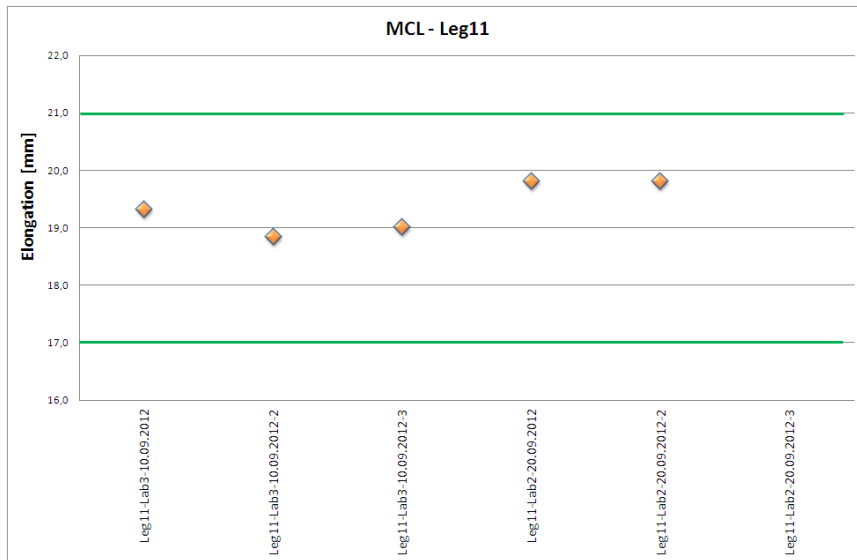
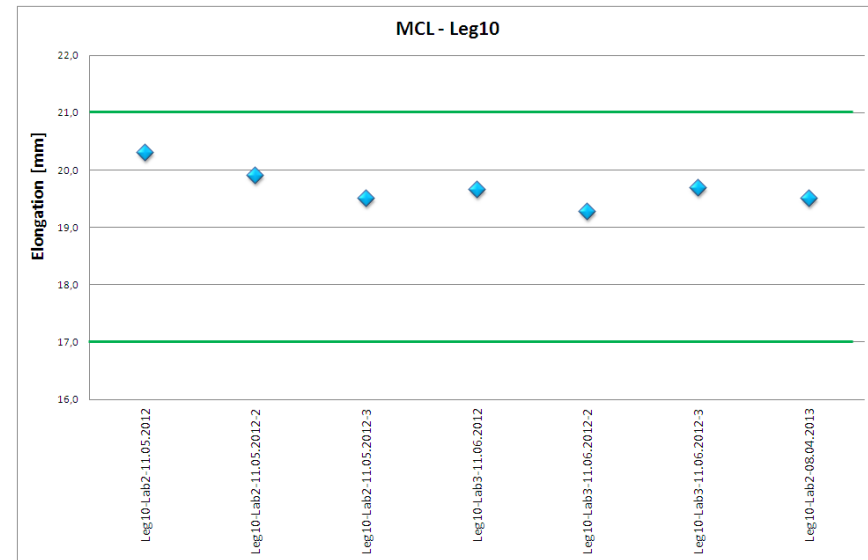
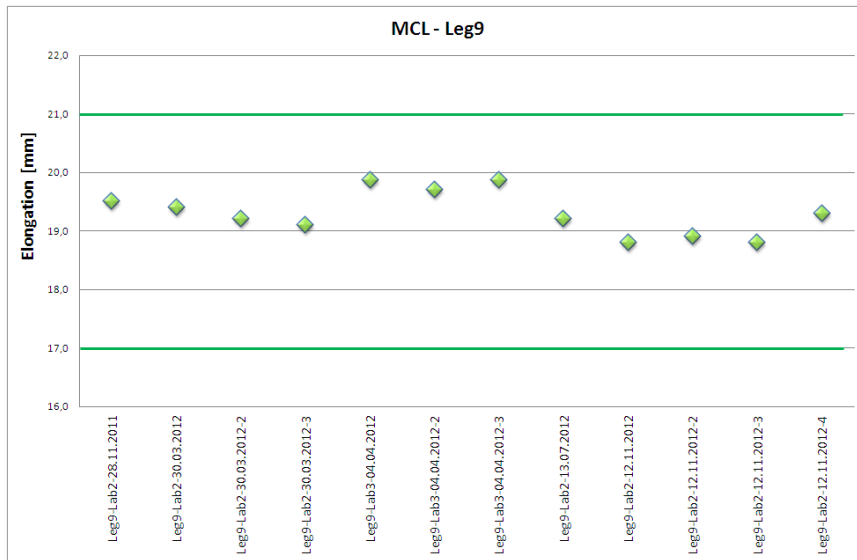
# Results MCL - Inverse Tests



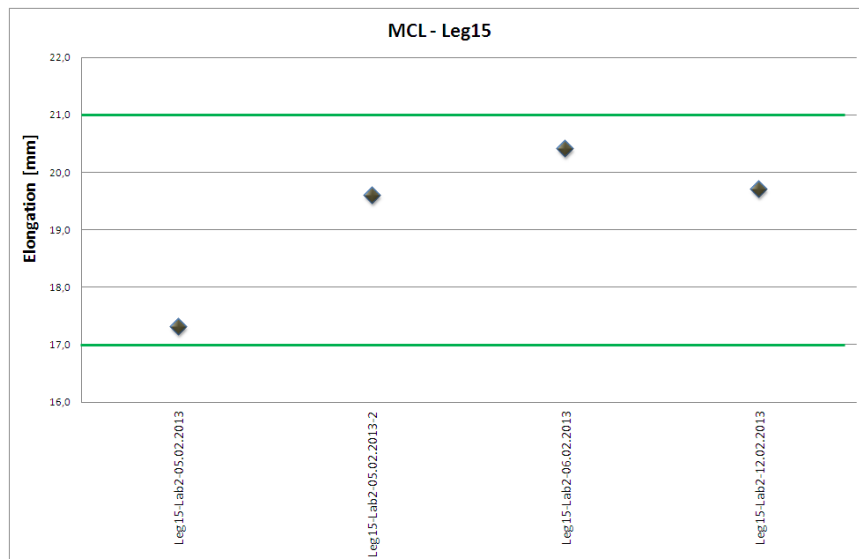
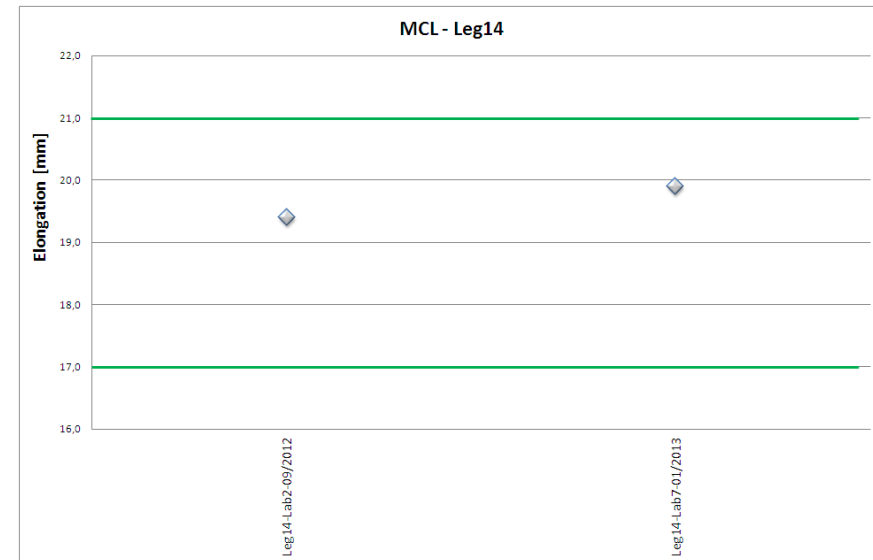
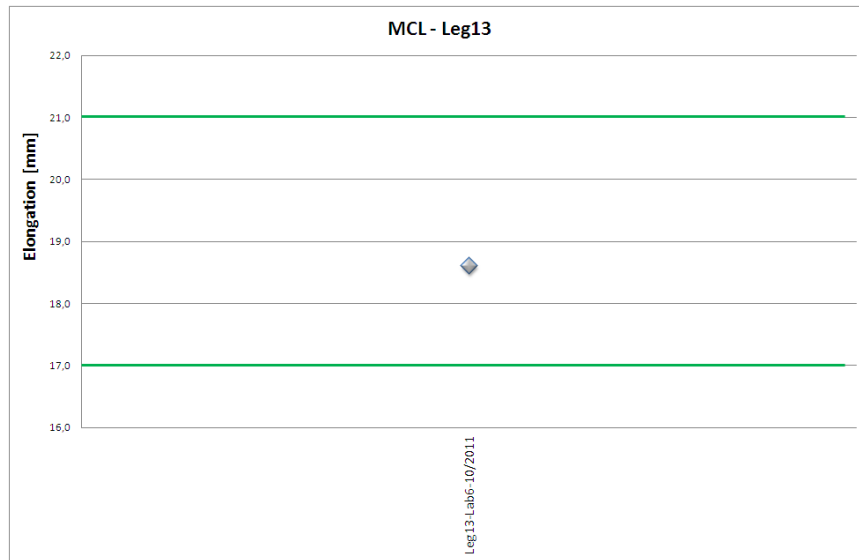
# Results MCL - Inverse Tests



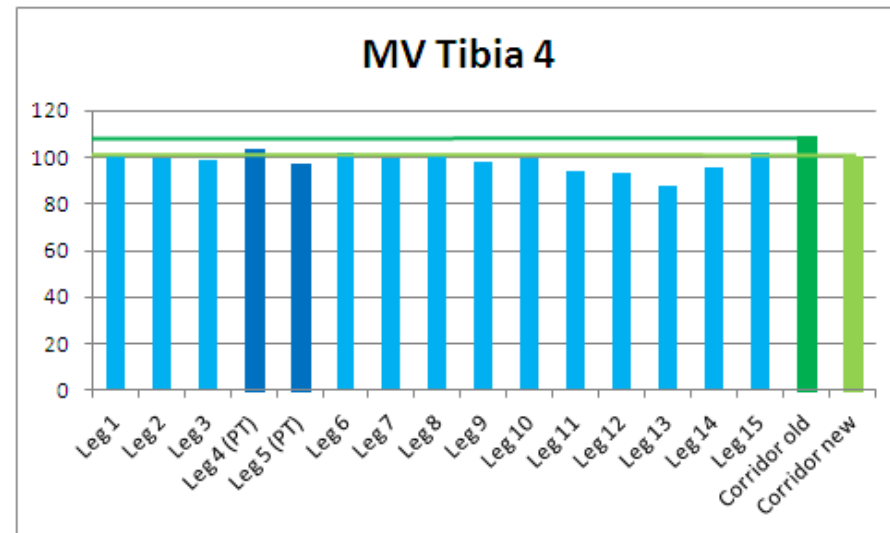
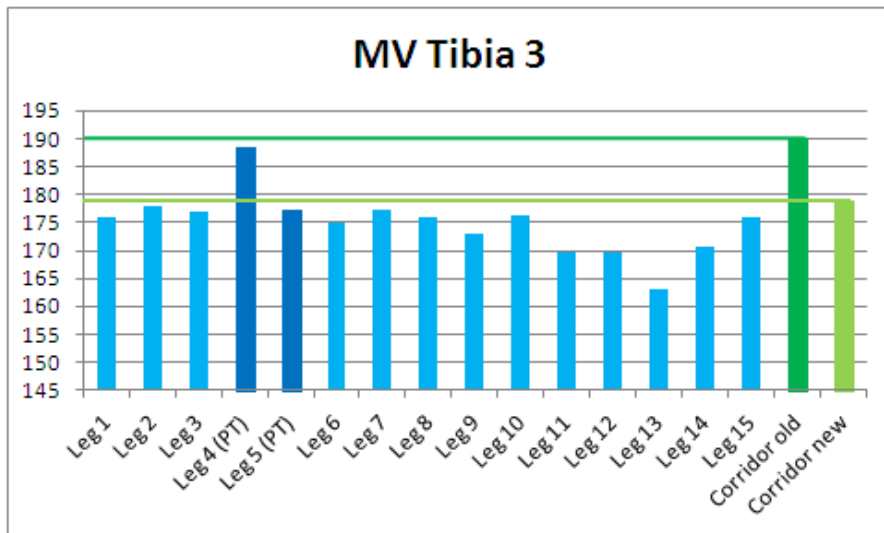
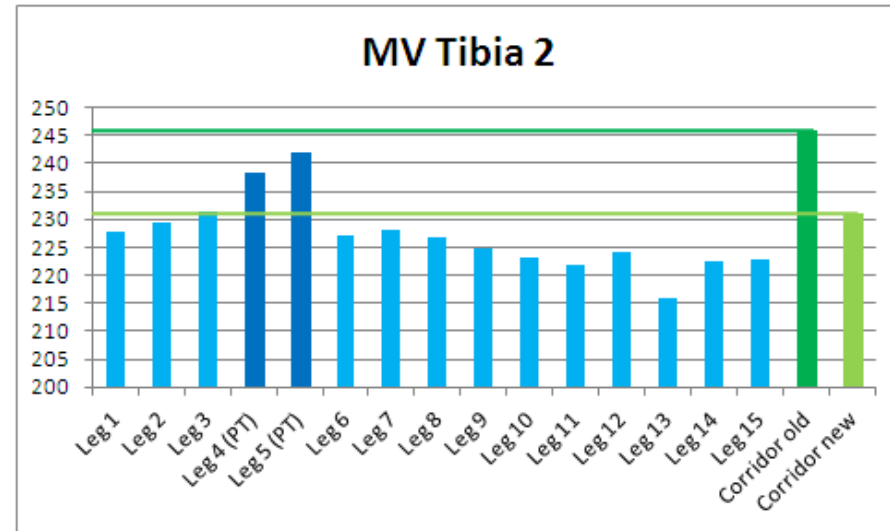
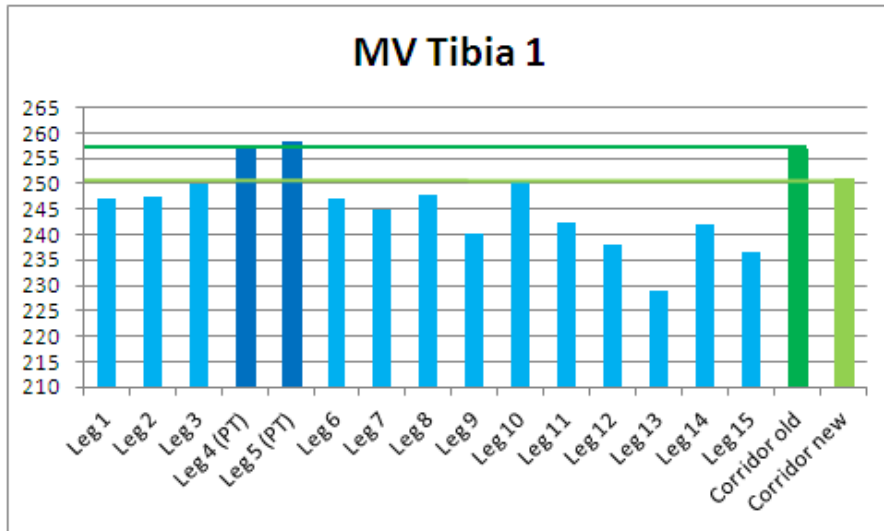
# Results MCL - Inverse Tests



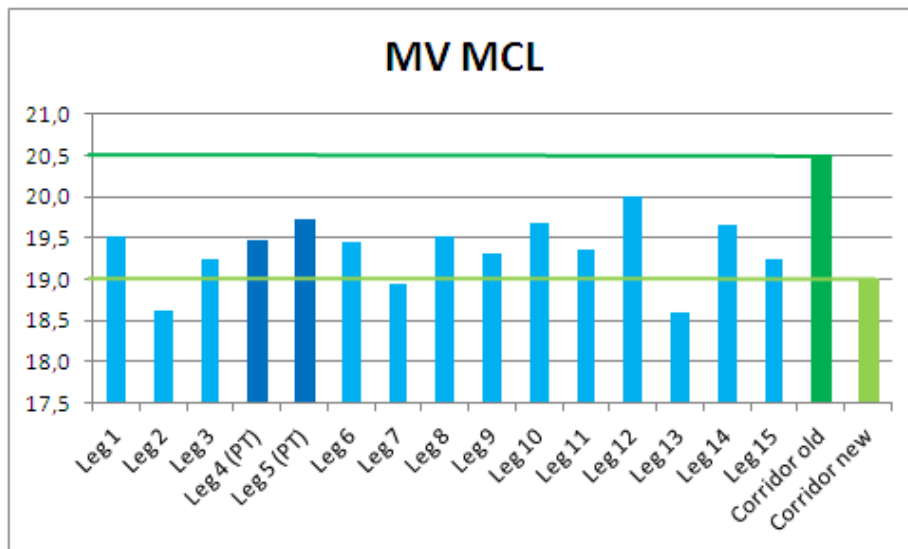
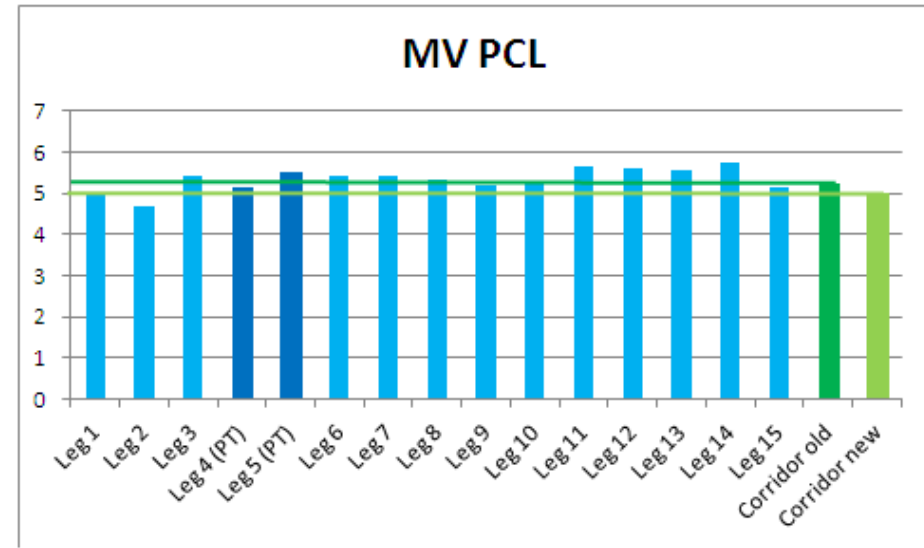
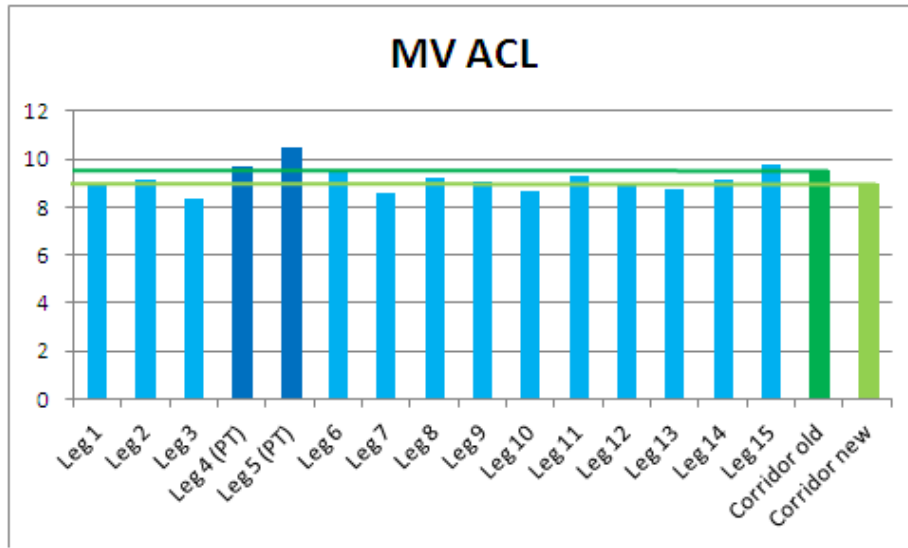
# Results MCL - Inverse Tests



# Mean Values - Inverse Tests



# Mean Values - Inverse Tests



# Summary



- **Tibia 1: 4 \* not met – 130 \* met**
  - **Serial production legs: 4 \* not met**
- **Tibia 2: 1 \* not met – 133 \* met**
  - **Prototypes: 1 \* not met**
- **Tibia 3: 7 \* not met – 127 \* met**
  - **Serial production legs: 4 \* not met**
  - **Prototypes: 3 \* not met**
- **Tibia 4: 15 \* not met – 119 \* met**
  - **Serial production legs: 4 \* not met**
  - **Prototypes: 11 \* not met**
- **ACL: 26 \* not met – 108 \* met**
  - **Serial production legs: 5 \* not met**
  - **Prototypes: 21 \* not met**
- **PCL: 4 \* not met – 130 \* met**
  - **Serial production legs: 1 \* not met**
  - **Prototypes: 3 \* not met**
- **MCL: 1 \* not met – 133 \* met**
  - **Prototypes: 1 \* not met**

## Summary:

- **95 tests passed inverse requirements**
  - **84 w/ serial production legs**
  - **11 w / prototypes**
- **39 tests failed inverse requirements (due to one or more segments not meeting the corresponding corridor)**
  - **13 w/ serial production legs**
  - **26 w/ prototypes**
- **Pass / fail ratio**
  - **71% for all legforms**
  - **87 % for serial production legs**
  - **30 % for prototypes**