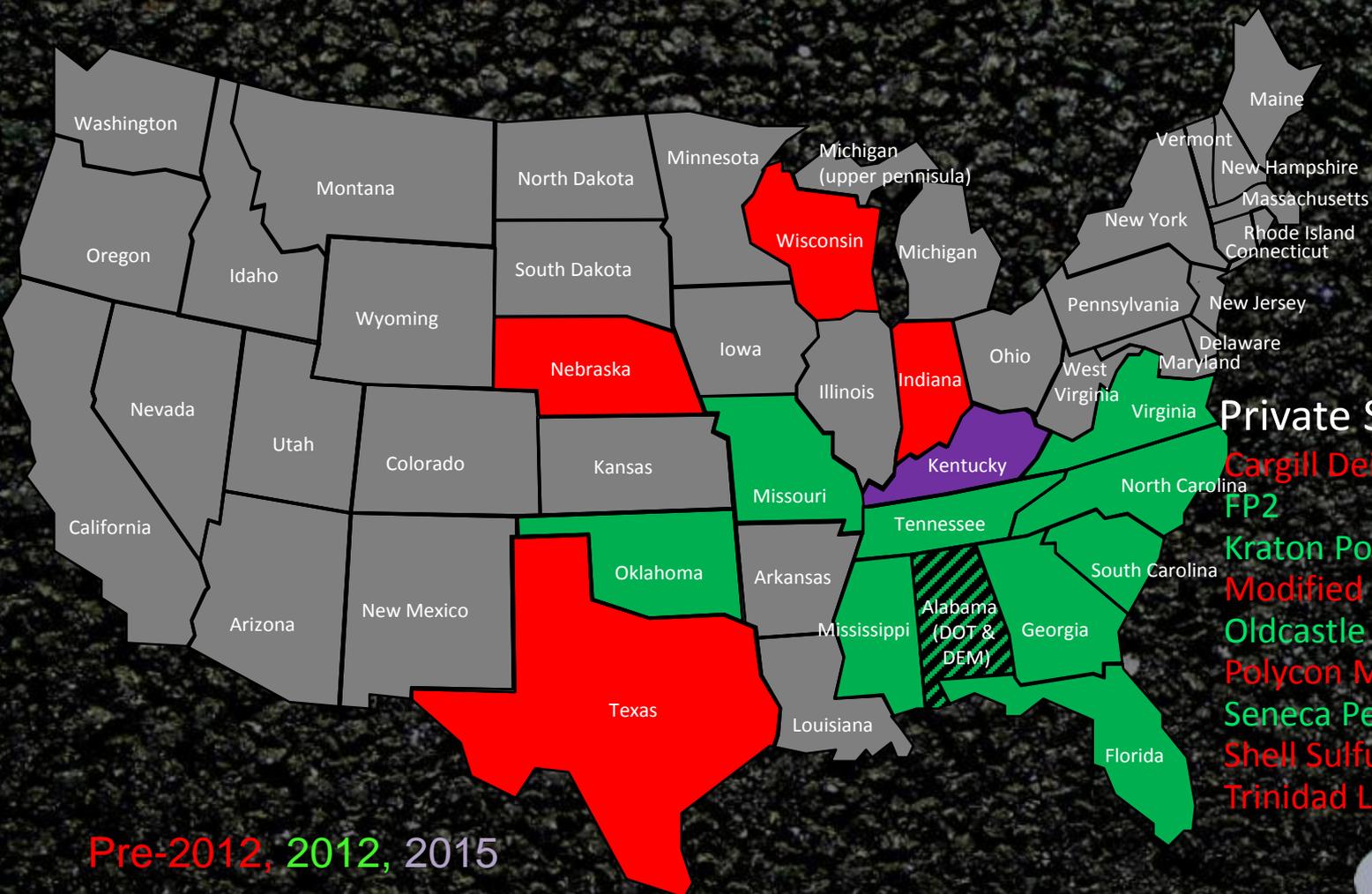


NCAT Pavement Test Track



Track Update for VAA Fall Asphalt Conference

Track Research Sponsors



FHWA

Private Sector Sponsors

- Cargill Deicing Technology
- FP2
- Kraton Polymers
- Modified Asphalt Solutions
- Oldcastle Materials
- Polycon Manufacturing
- Seneca Petroleum
- Shell Sulfur Solutions
- Trinidad Lake Asphalt

Pre-2012, 2012, 2015



at AUBURN UNIVERSITY

Content

- Status of the 2012 research cycle
- Focus on VDOT's FDR and CCPR sections
- Planning process for 2015 research cycle

Status of 2012 Research Cycle

- >9.8 million ESALs applied (complete \approx 10/18)
- Terminal 10M ESAL performance measurements
- Forensic trenching/coring immediately thereafter
- Limitations in “traffic continuation” sections (+)
- Track Conference March 3rd through 5th, 2015.

VDOT Research Background

- 3.66 miles on I-81 in Augusta County, VA in 2011
- Post-mill FDR in right lane due to deterioration
- CCPR base mix placed with 4 inch asphalt overlay
- Need to quantify CCPR structural contribution.

VDOT Track Sections

- 6" HMA on CCPR base on Track foundation (N3)
- 4" HMA on CCPR base on Track foundation (N4)
- 4" HMA on CCPR base on FDR foundation (S12).

Full Depth Reclamation



Full Depth Reclamation



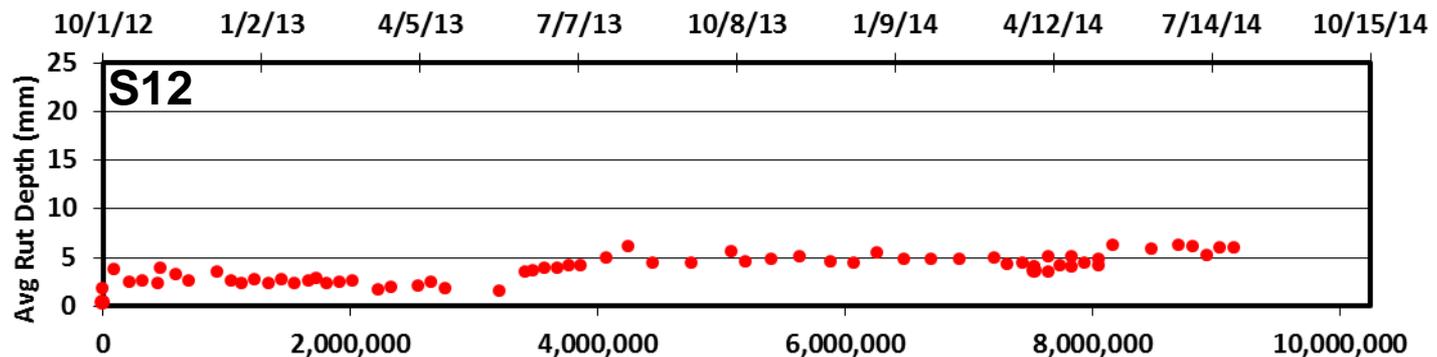
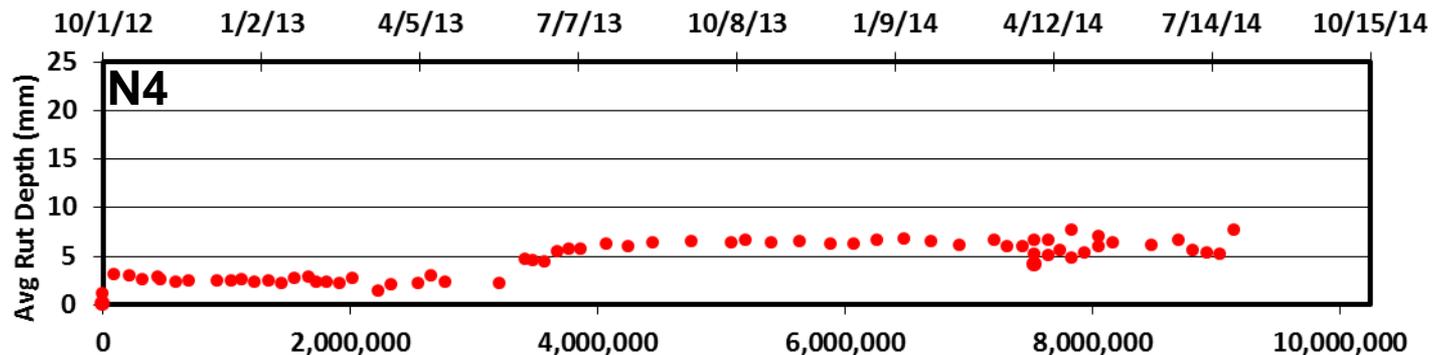
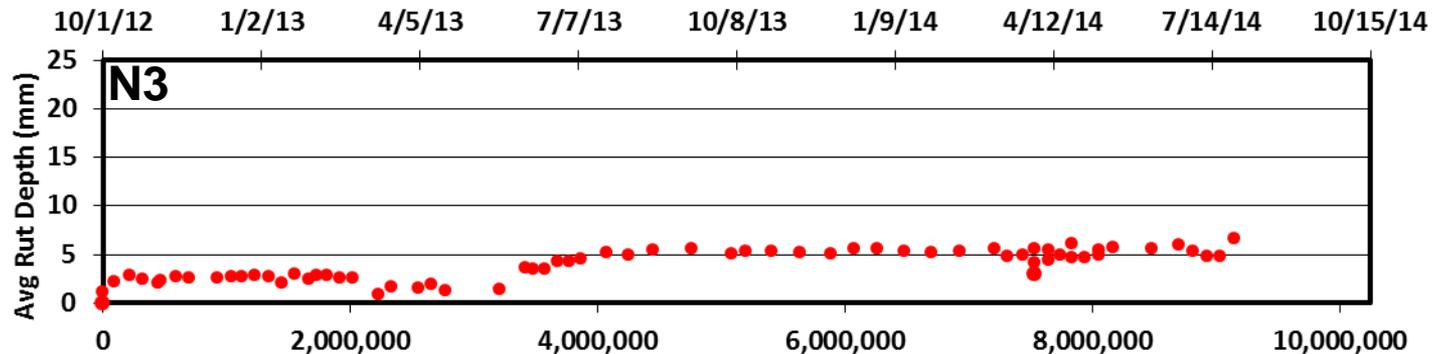
Processed Virginia RAP



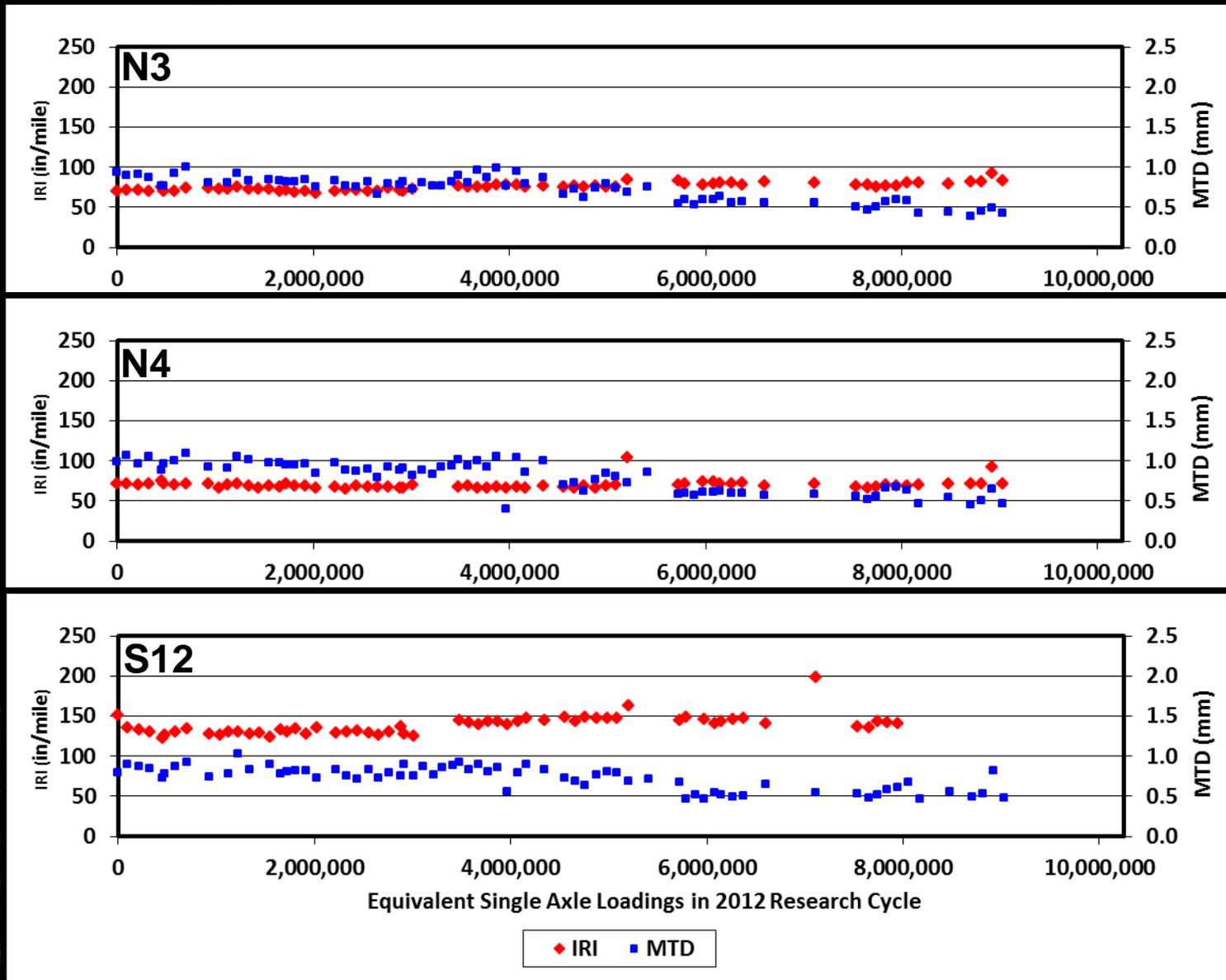
Onsite CCPR Plant



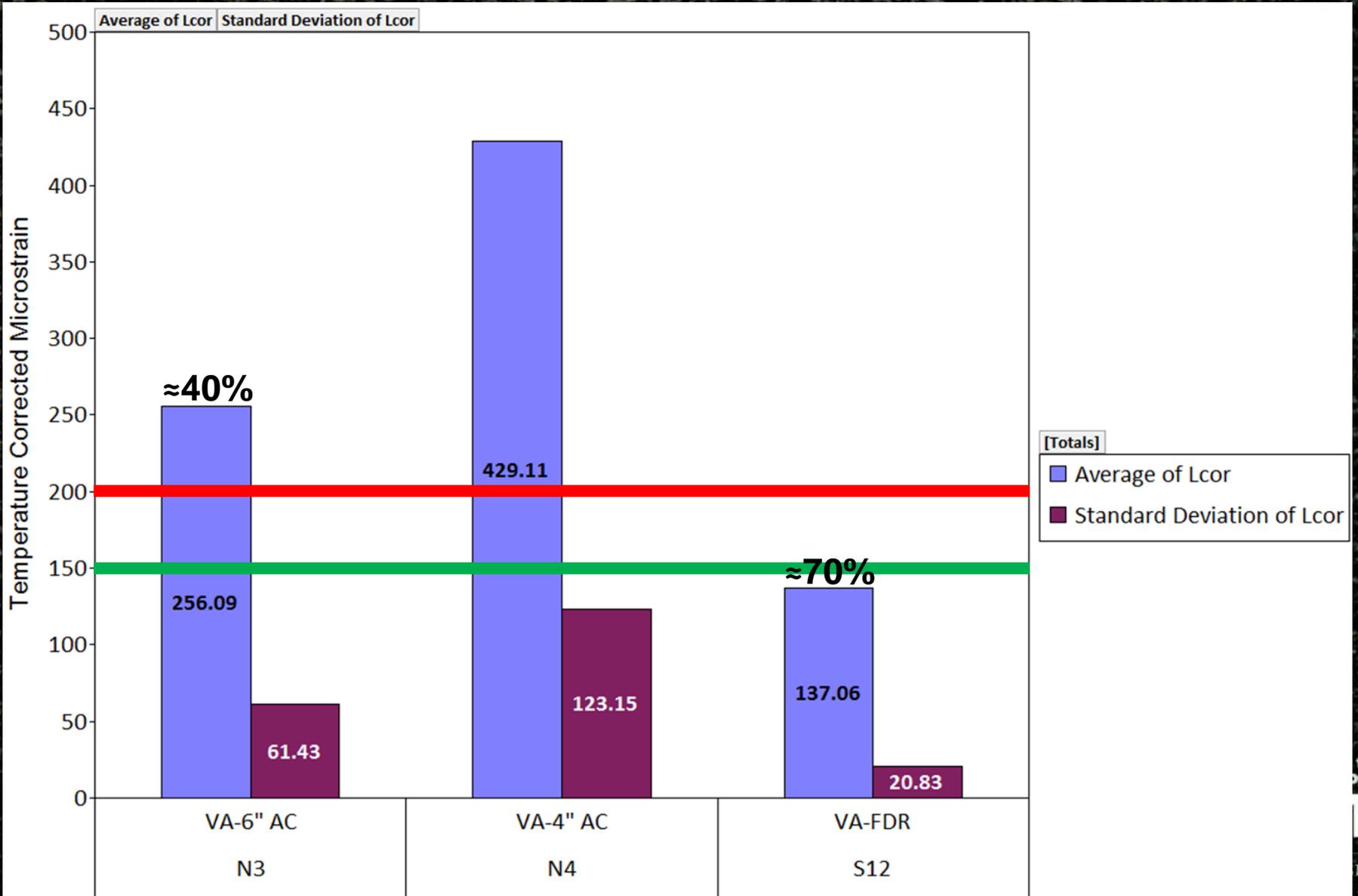
Rutting Performance



Roughness and Macrotexture



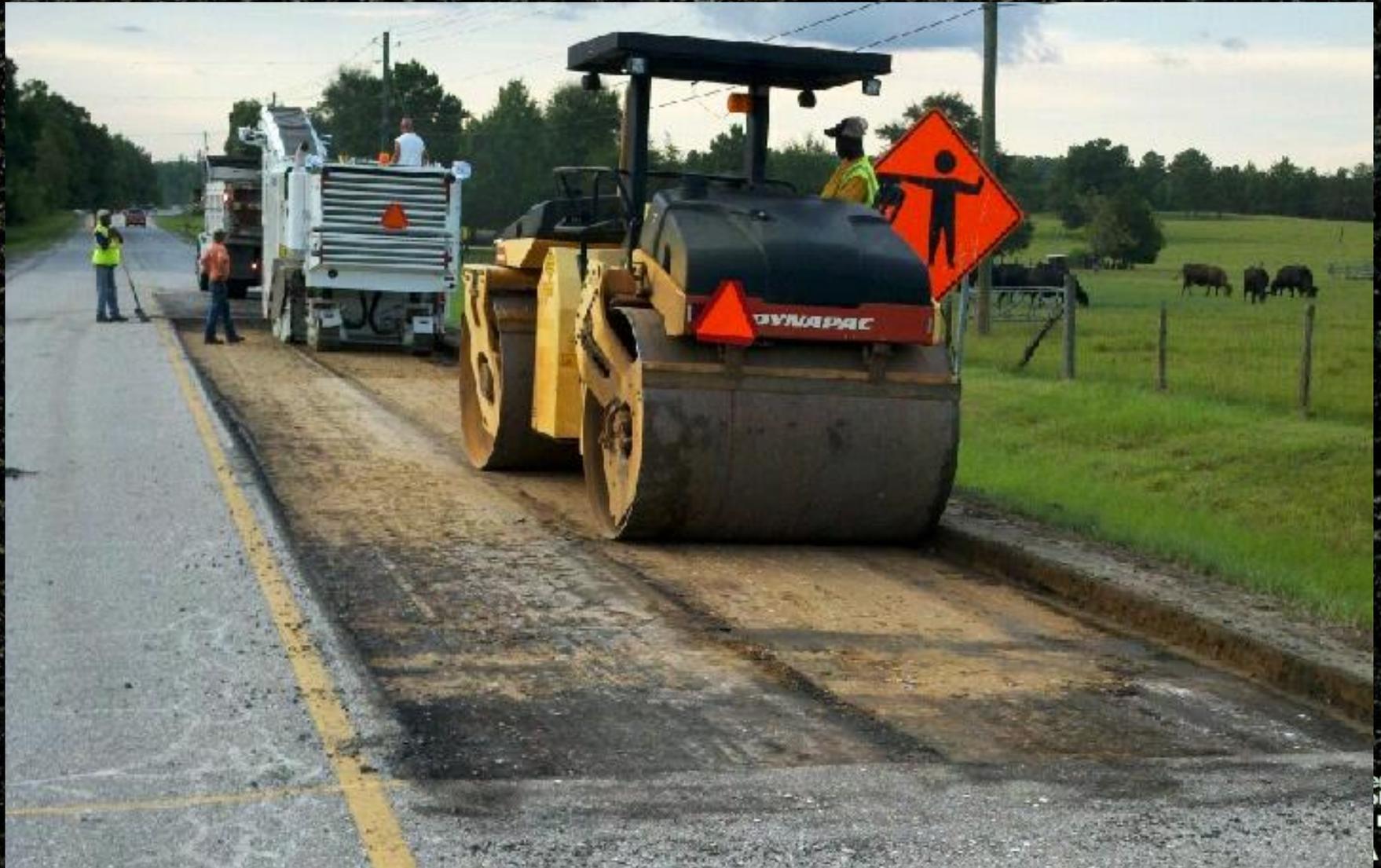
High-Speed Response



Lee Road 159



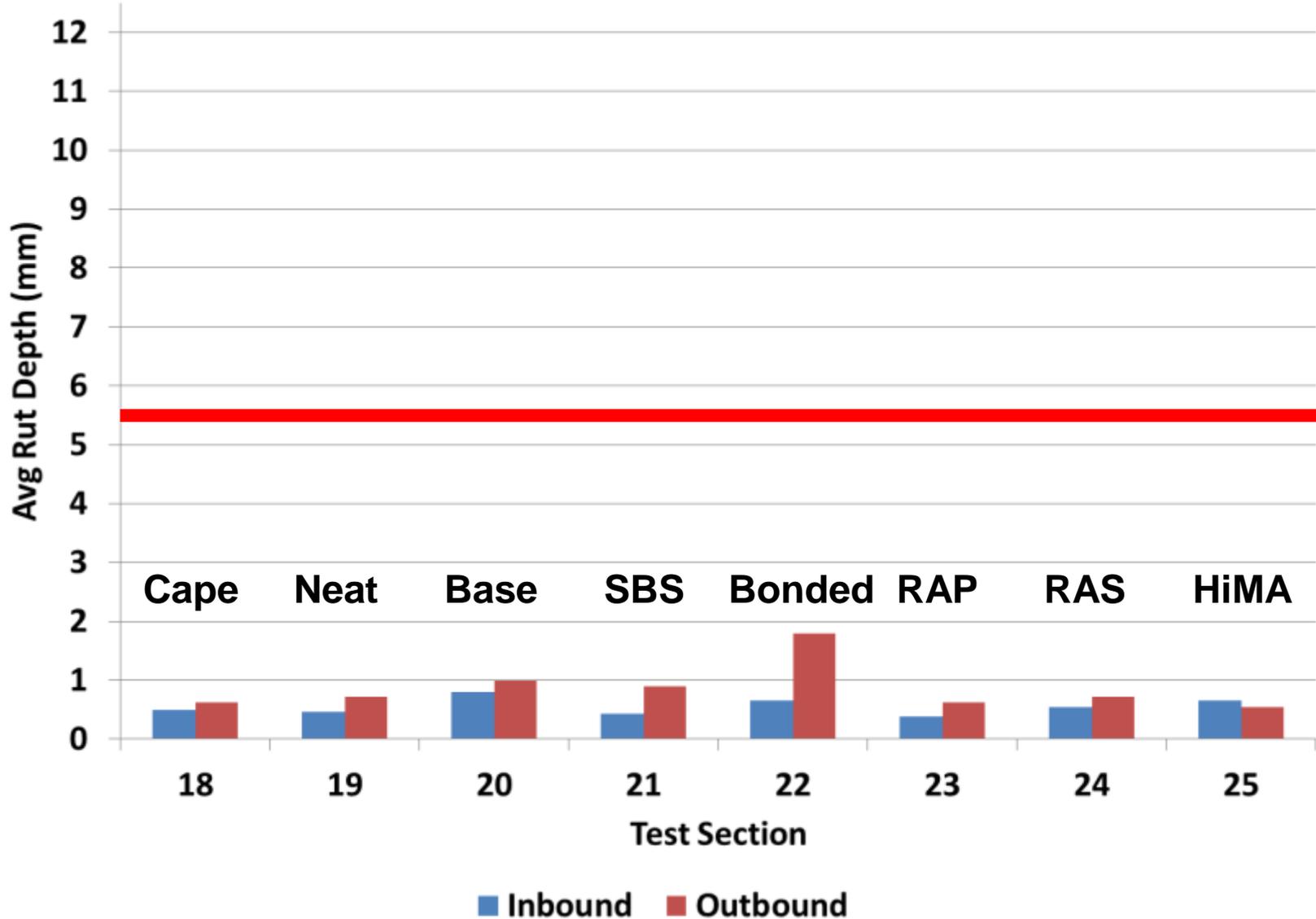
Lee Road 159



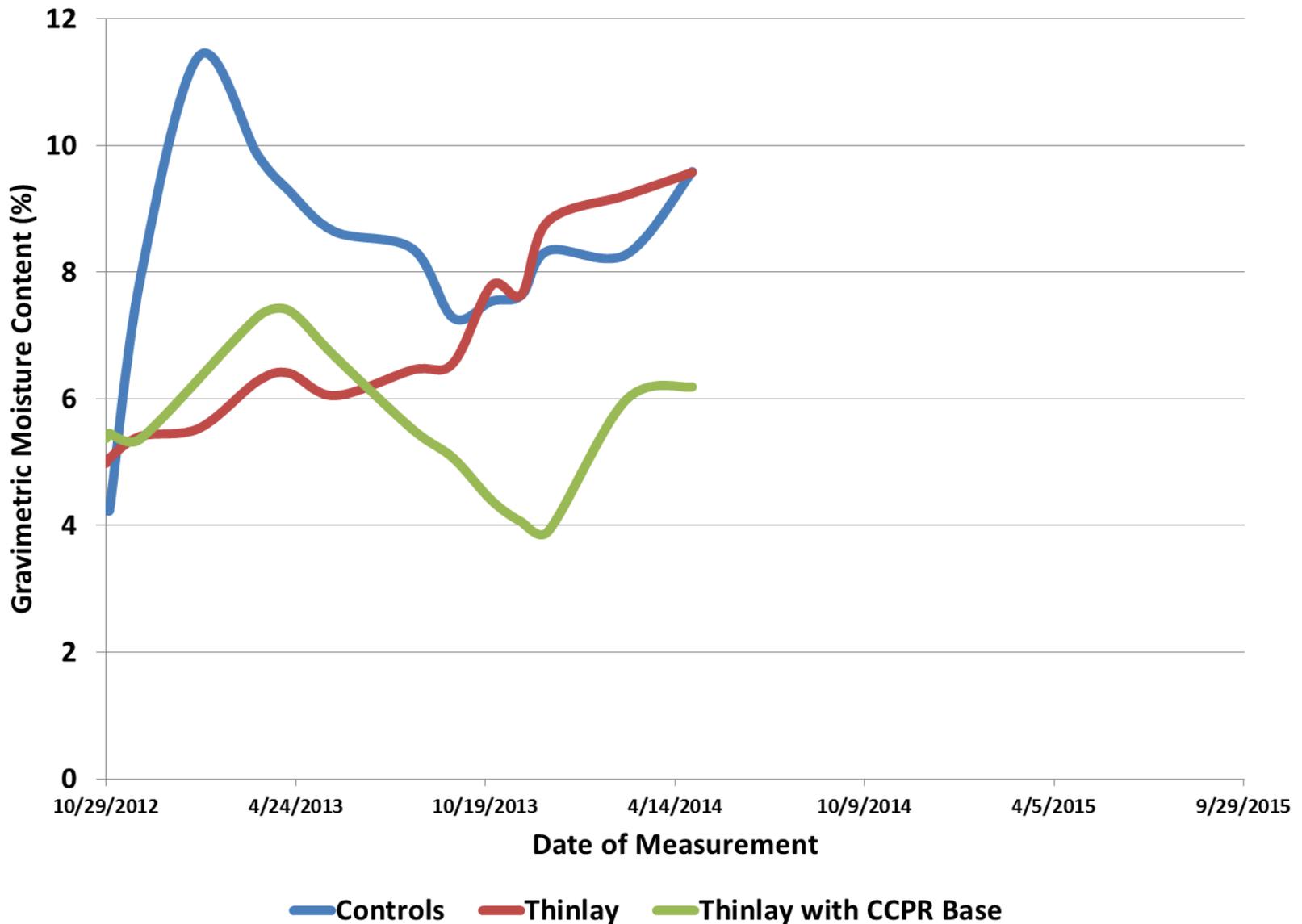
L20 – Thin HMA
Overlay on
100% RAP Mix Base



Rutting on Lee Road 159



Subgrade Moisture Contents



NCAT's CCPR Research Efforts

- Mix design methodologies
- Structural contribution (E, M-E)
- QC/QA practices for DOTs
- Training and implementation.

NCAT Expectations for 2015 Track

- Durability of innovative OGFC surfaces
- Surface crack prevention
- 100% RAP foamed CCPR base mix
- Expanded study of thin overlay mixes
- Asphalt based high friction surfaces
- Crack prediction test for ALL mix types (CG)
- Continuation/expansion of preservation (PG15).

Preservation Group (PG15) Study

- Continue monitoring '12 sections (Track & 159)
- Capture entire life extending benefit curve(s)
- Partnership with MnROAD for nationwide scope
- Build new sections on higher ADT roadway.

Higher ADT Off-Track Preservation

- US-280 3 miles to east ?
- 17,000 ADT, >10 years old
- Westbound outside lane
- Tenth mile sections
- Duplicate Lee Road 159
- CCPR_{F,E}, CIR_{F,E}, and HIR
- High BR thin overlays.

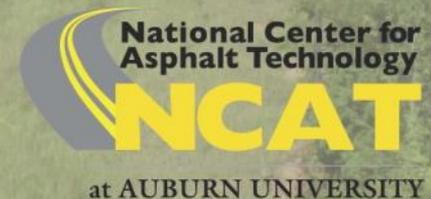
2015 Pavement Test Track Conference

March 3-5, 2015

The Hotel at Auburn University
and Dixon Conference Center
Auburn, Alabama

- ▶ WMA & High RAP/RAS/GTR Mixes
- ▶ Optimized Structural Design
- ▶ Pavement Preservation
- ▶ Implementation

Official registration information will soon be available at www.ncat.us





www.ncat.us

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