



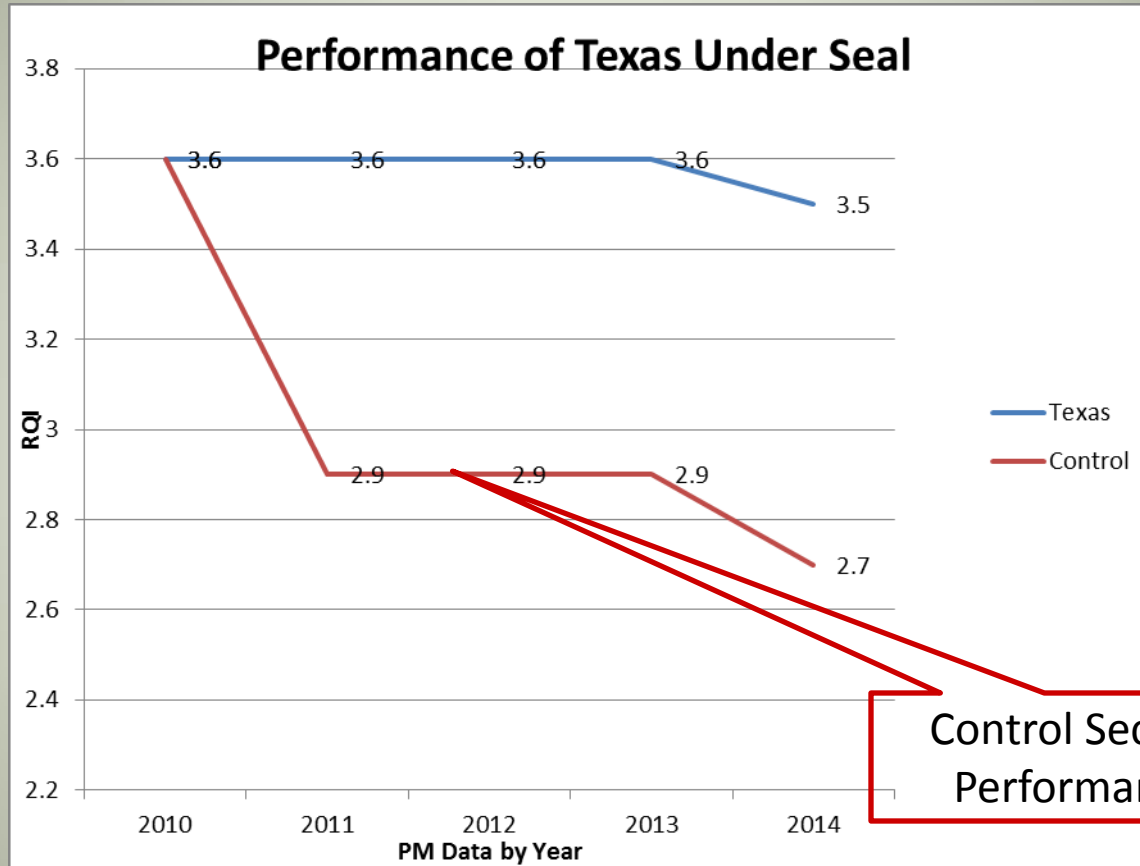
Minnesota Update

Dealing with Reflective Crack
Aging Study

Texas Under Seal

- Texas under seal is chip seal placed under a overlay
 - Is Stress Relief Membrane
 - The chip seal acts like super tack

PM Performance Data





07/23/2013 08:21

TH 56 Aging Test Site

What was Done & Why

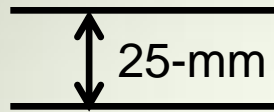
- Built aging study
 - Because 15 years take 15 years
- 3” mill and overlay 1999
- PG 58-28 binder
- Chip sealed 1 mile sections starting at year 1
- Last sections was chip seal 2004

TH 56 Aging Test Site

What was Done & Why

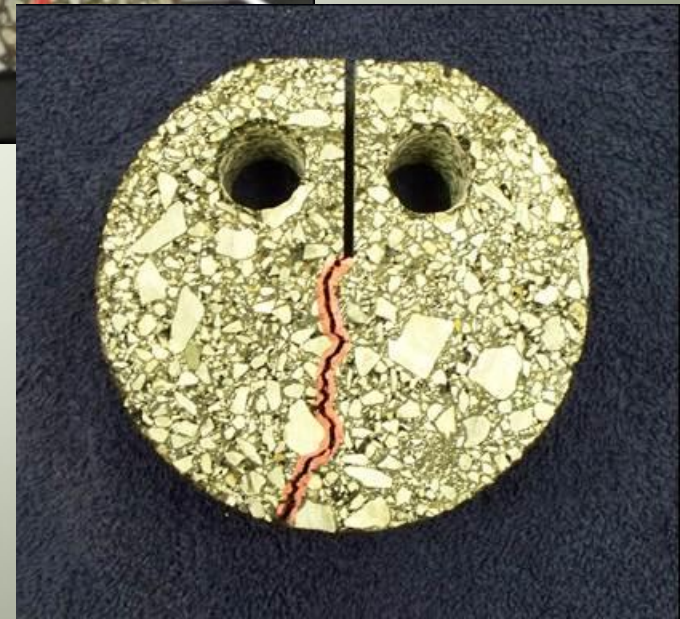
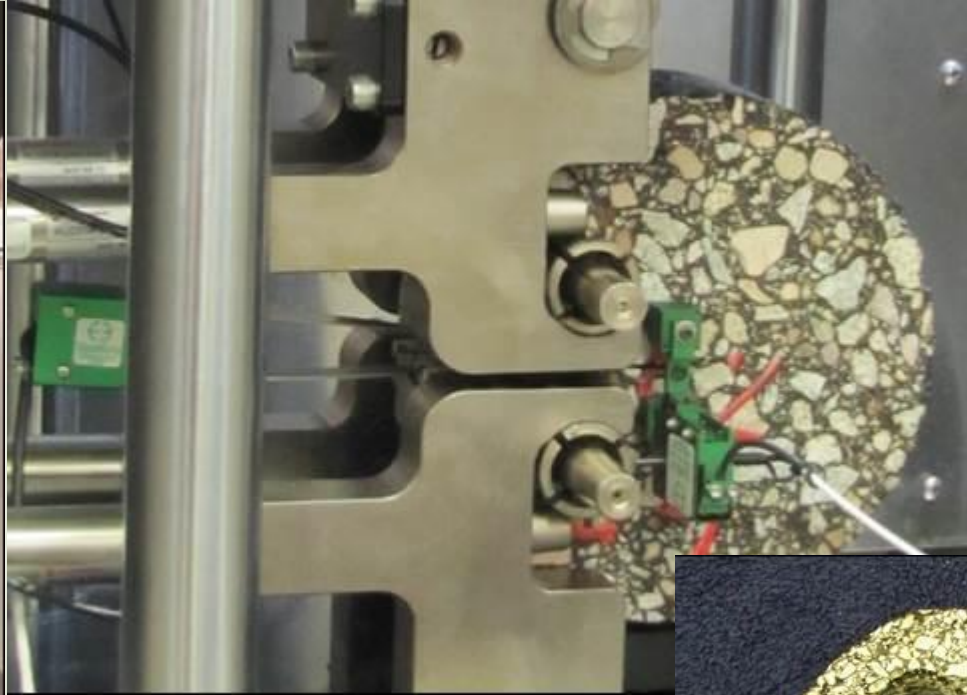
- Wanted to see what effect PM has on aging
- When is best time to apply treatment
- Cored in 2011 for Asphalt Institute study

TH56 Cores



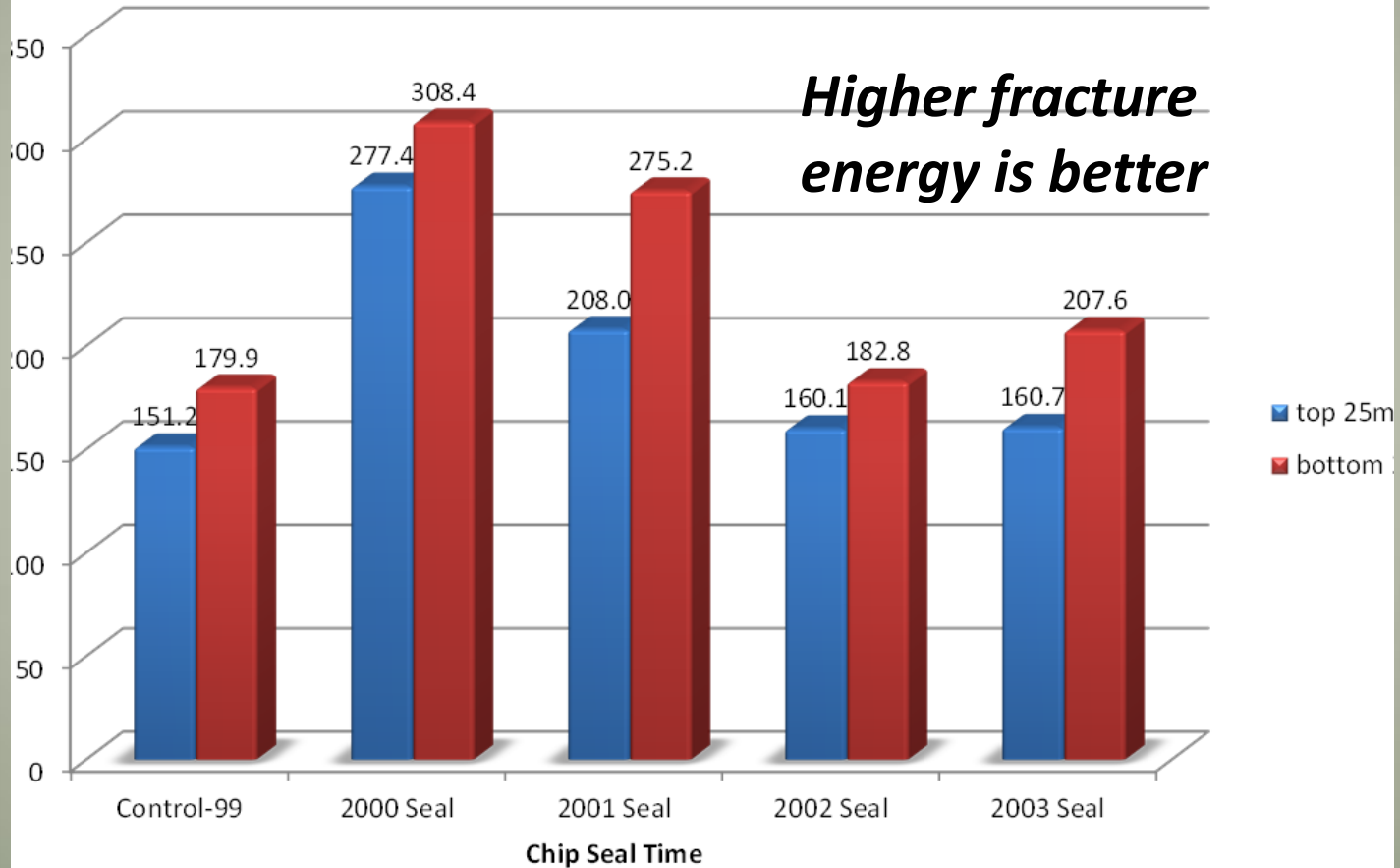
- Cores
 - Remove chip seal (if any)
 - Cut into two 25-mm layers
 - Test for fracture energy (cracking potential)
 - Recover component asphalt to check aging

Disk-Shaped Compact Tension Test: DC(T)



DC(T) Results: TH-56

TH56: DC(t) Data @ -24°C

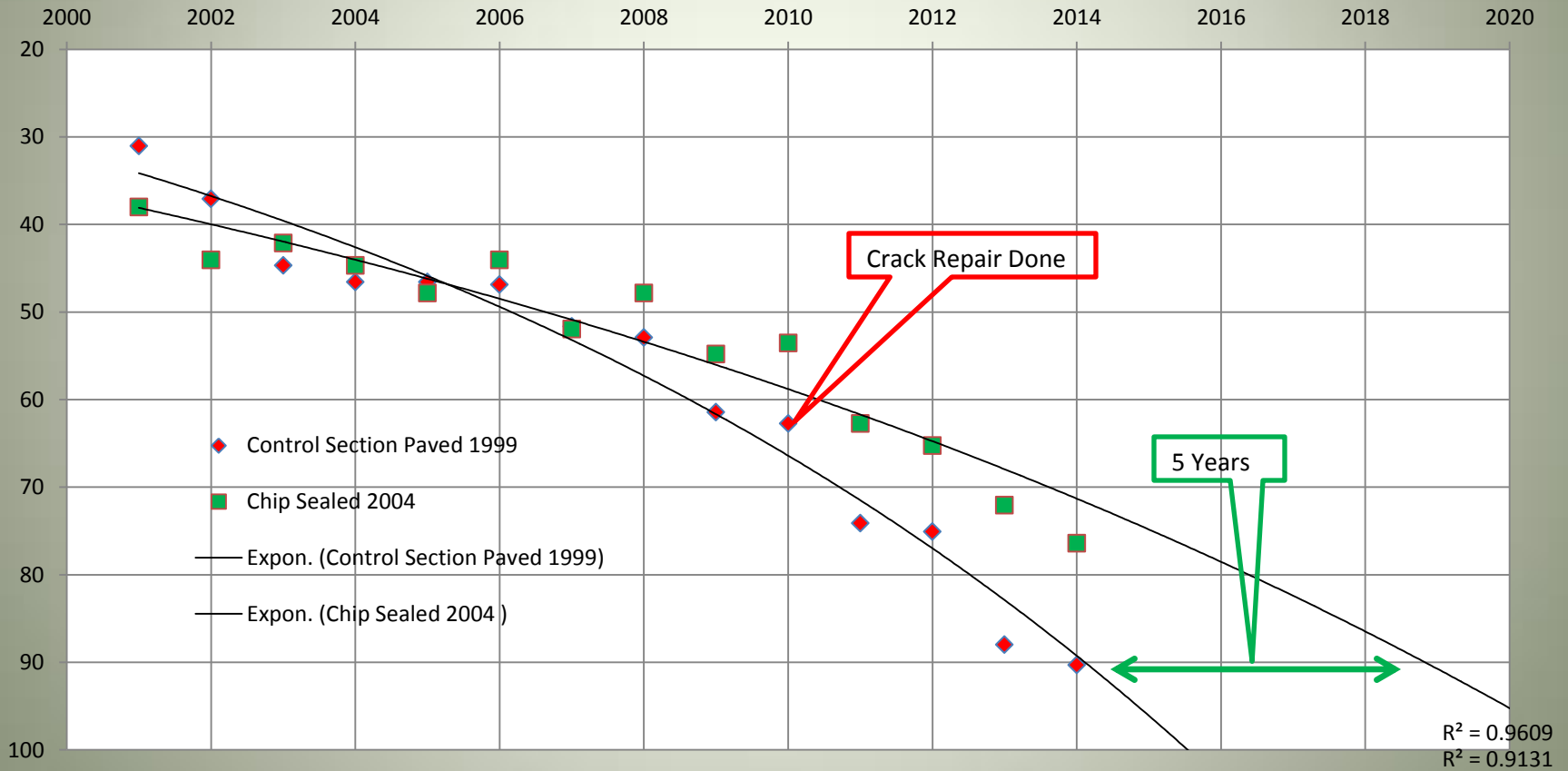


TH56 Findings

- Sealing improves resistance to aging (cracking)
- Sooner is better when sealing
 - Waiting for 3 or more years to seal after construction produced similar results as unsealed pavement related to DCT
 - Sealing after 1 or 2 years showed improvement in resistance to aging (cracking)

Ride Data

TH 56 IRI Average



Control Section



Chip Sealed Year 5

