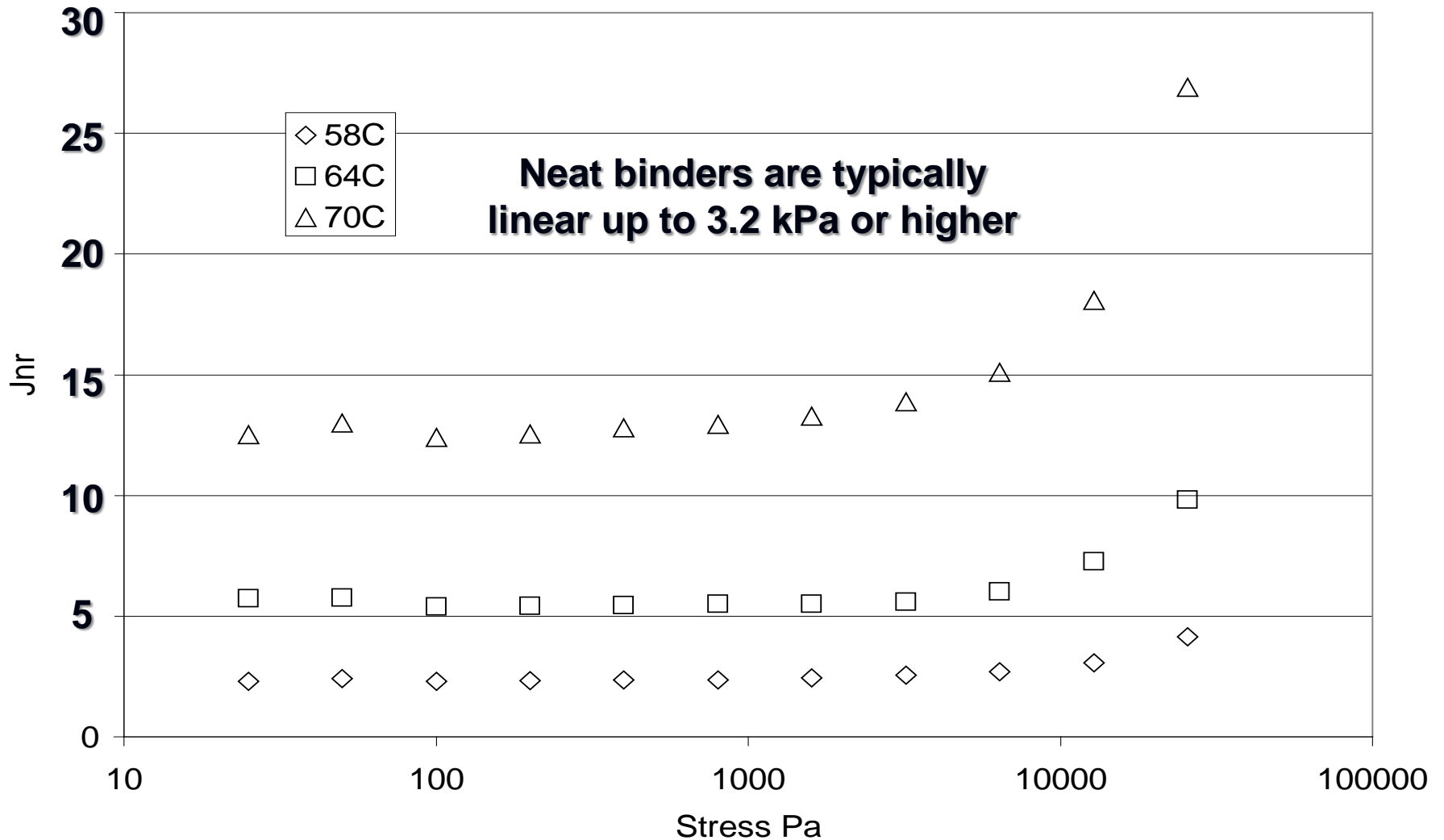


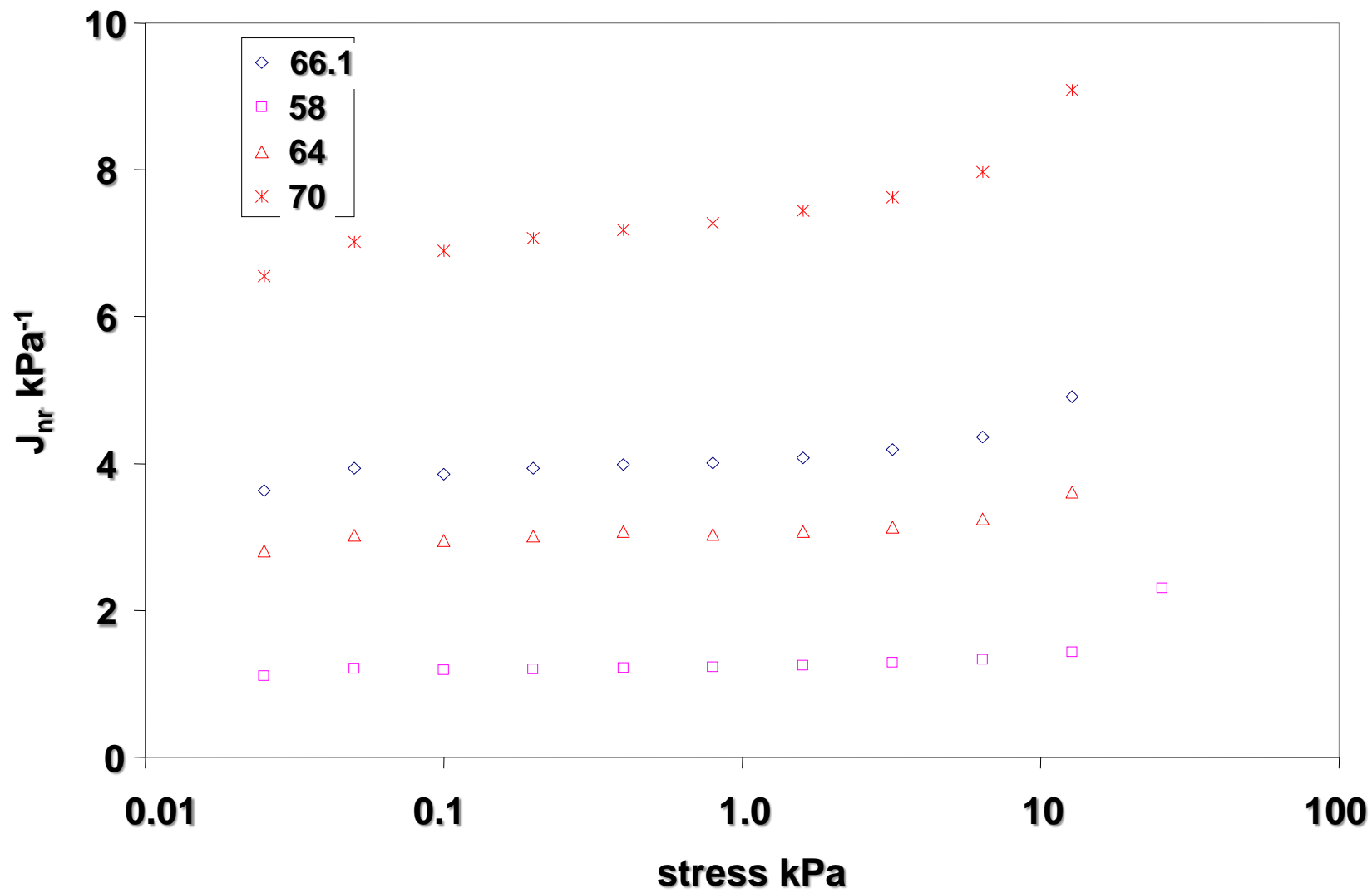
# Multi-Stress Creep and Recovery Test Method New Specification

John D'Angelo  
Federal Highway Administration  
Phone 202-366-0121 fax 202-493-2070  
[John.D'angelo@dot.gov](mailto:John.D'angelo@dot.gov)

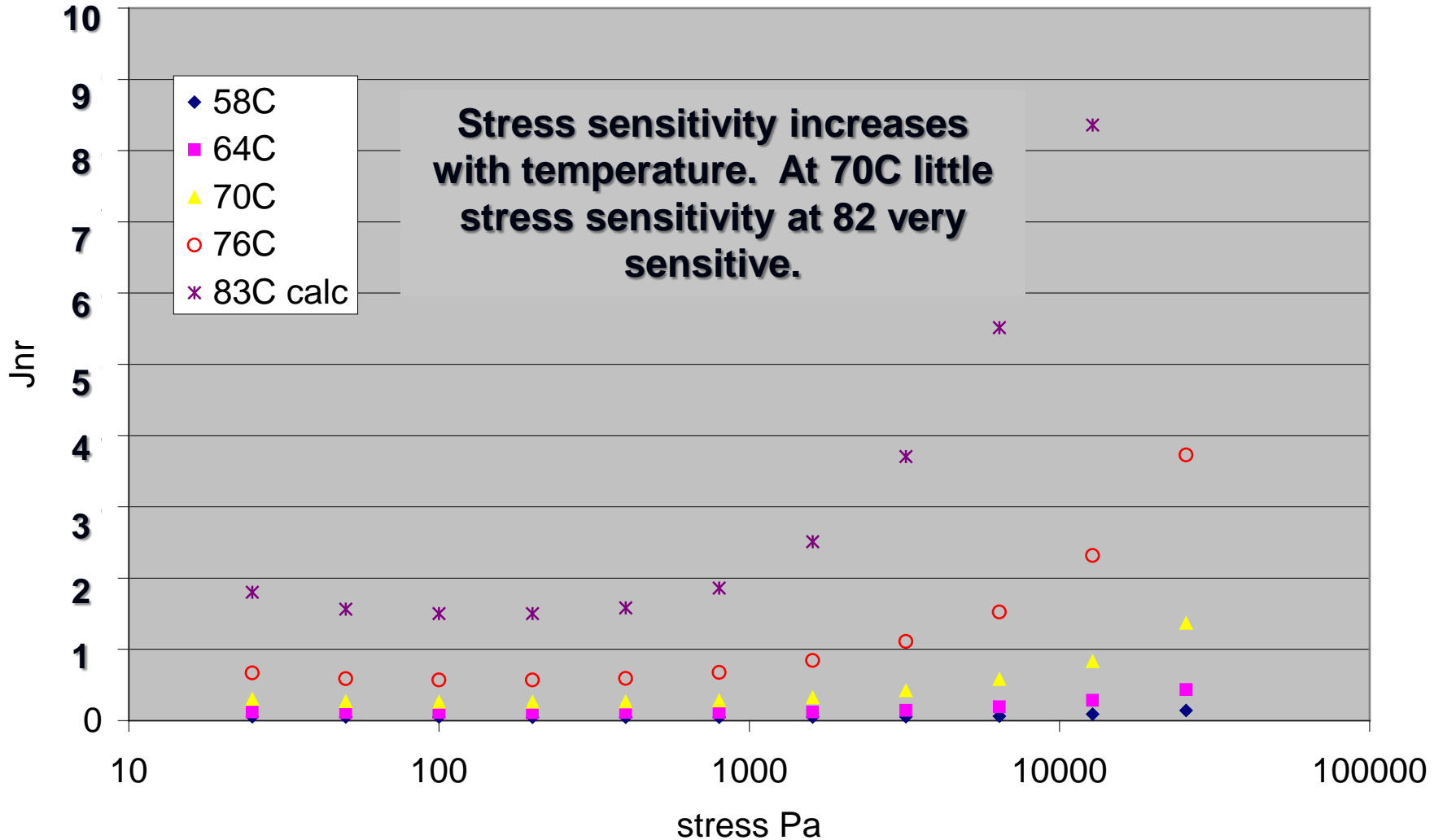
# Neat PG58-28 at multiple temperatures



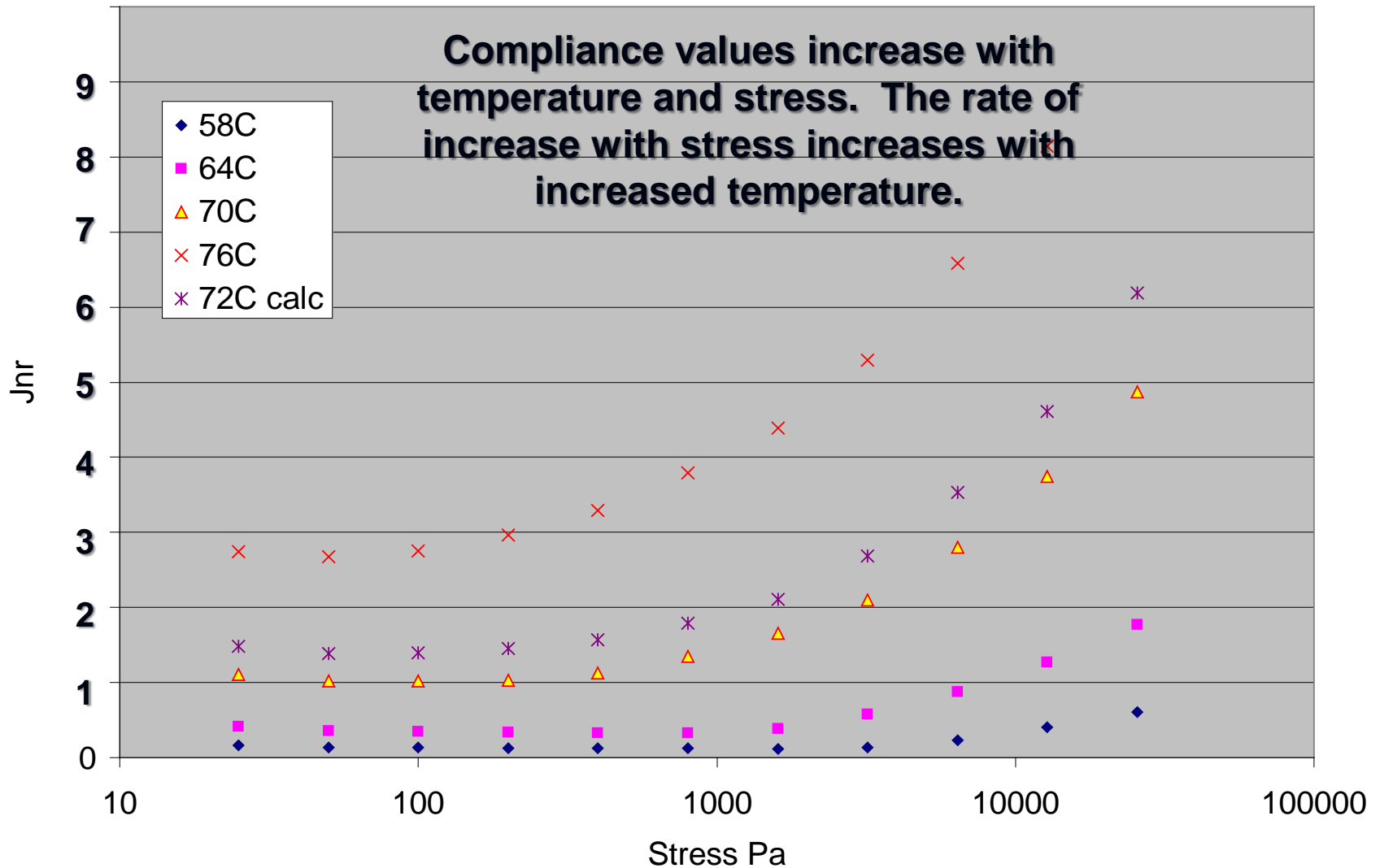
# BBRS3 PG 64-22



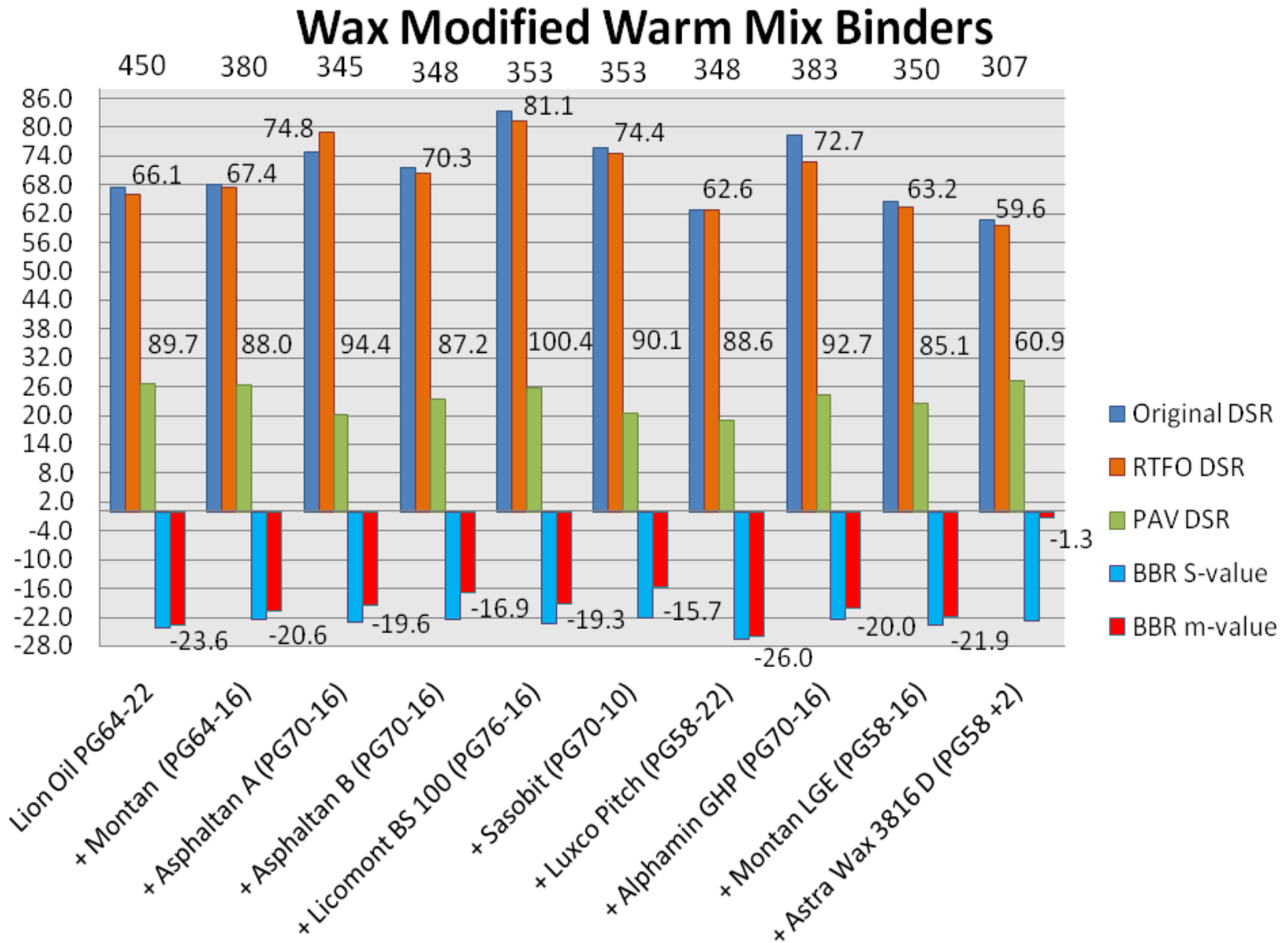
# PG 82-22



# SBS PG 70-28 SBS

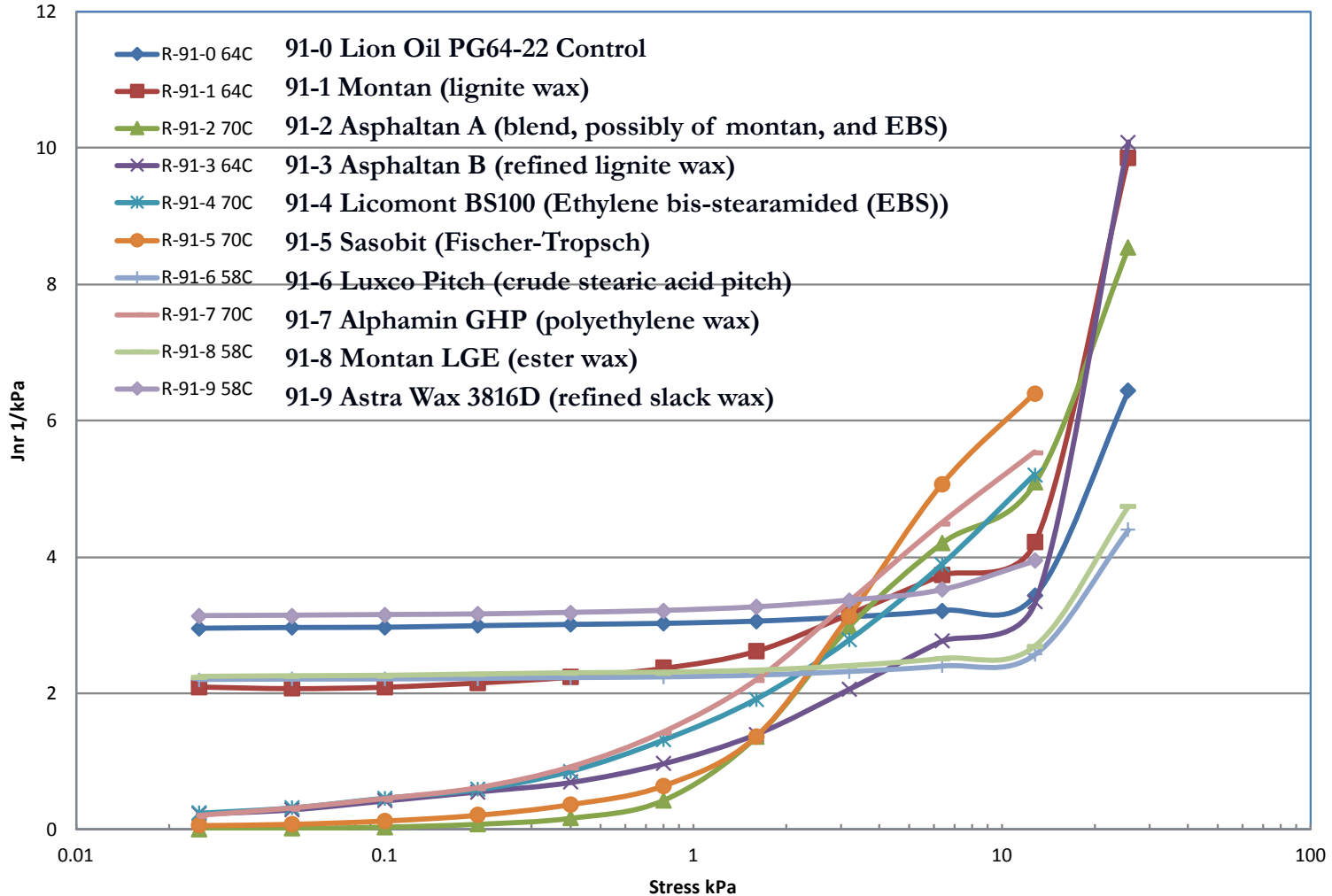


# ETG Wax study

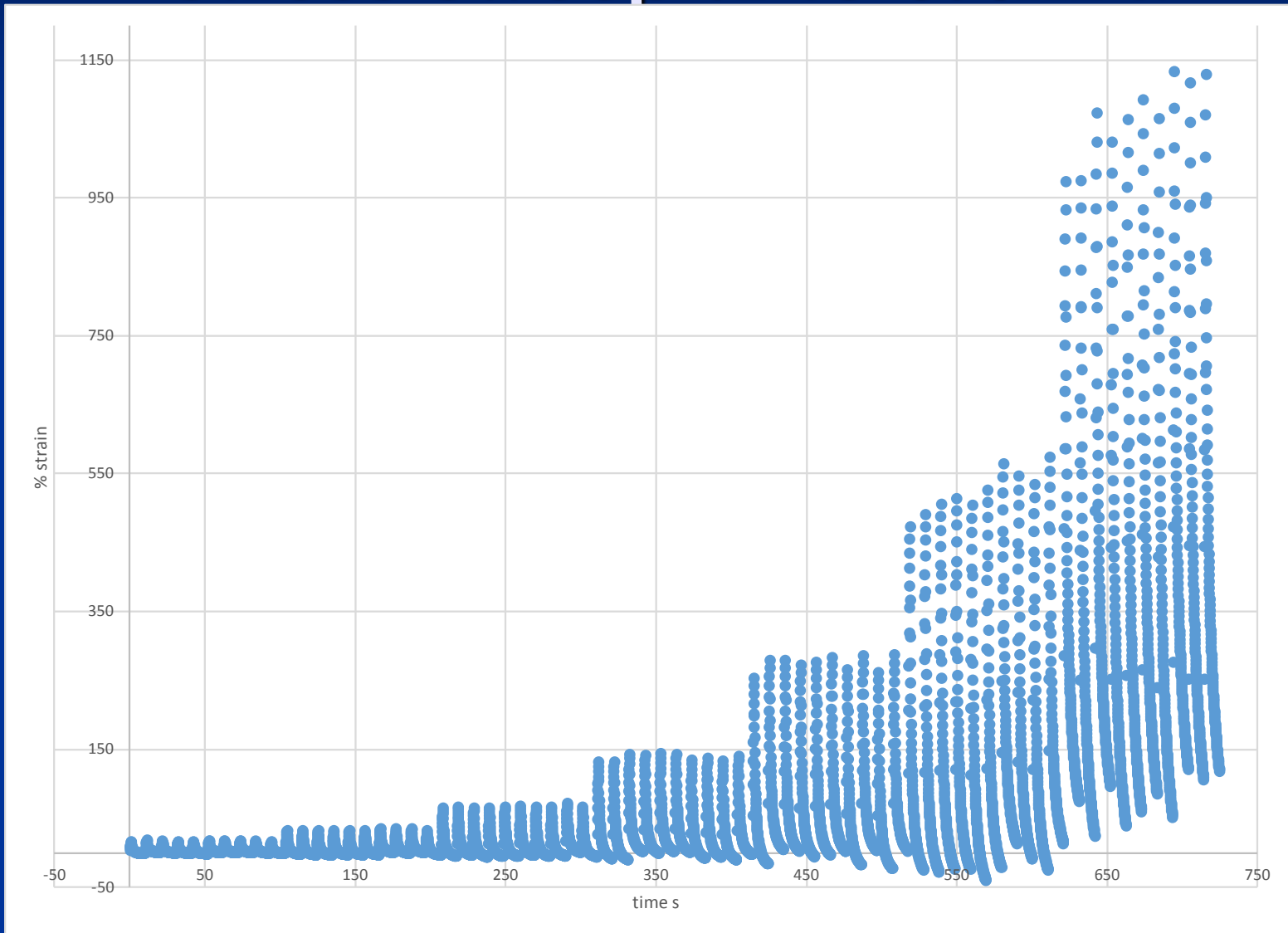


# ETG Wax study

Chart Title

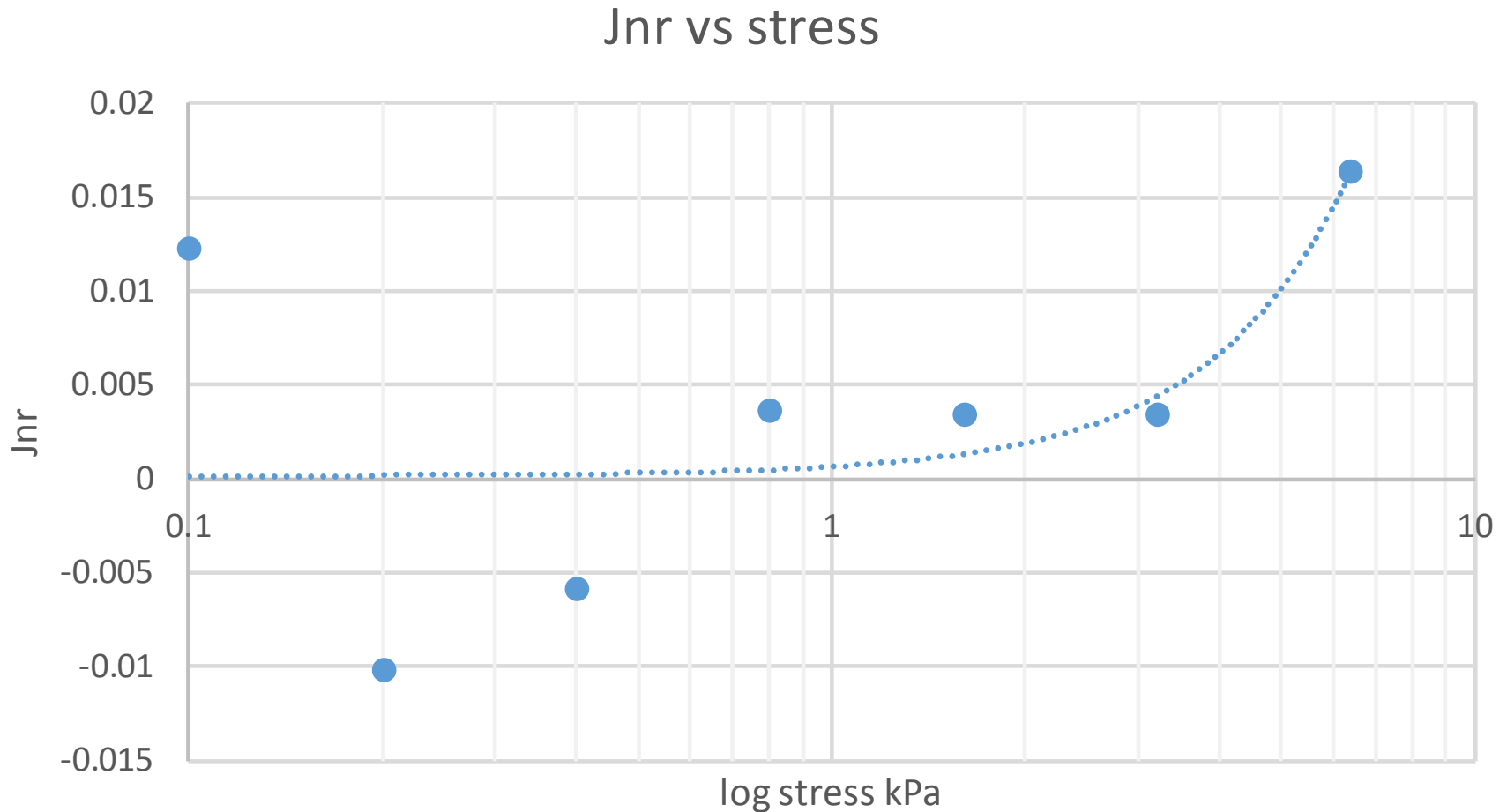


# Highly modified binder MSCR stress sweep .1 to 6.4kPa





# Jnr change with stress increase



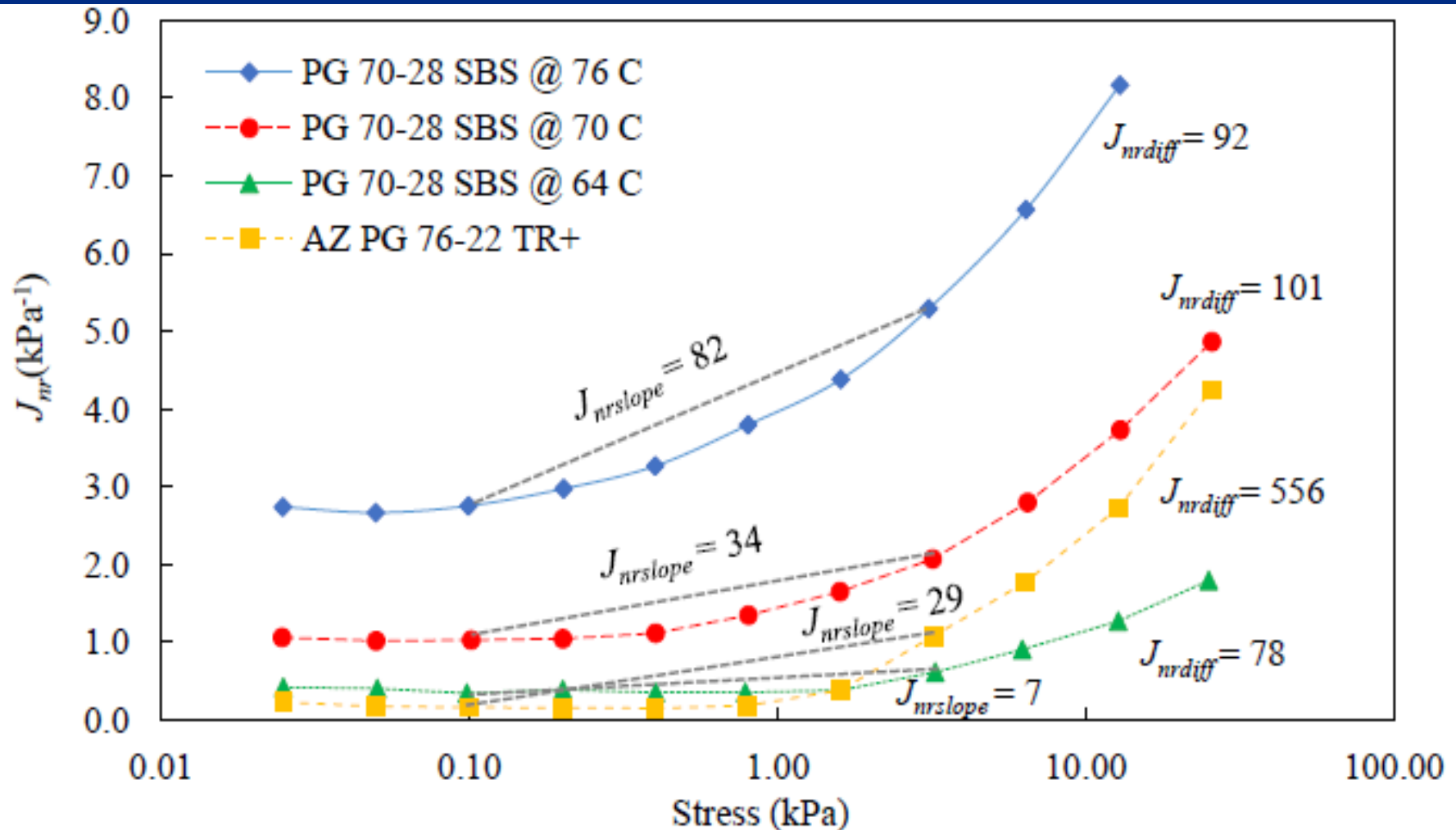
# Correction of Jnr Diff

- Increase the low stress from .1 to .8 kPa still in the linear range for most AC's
- Consider going to Jnr slope Arizona procedure.
- Keep original recommendation of waive Jnr diff for E grades.

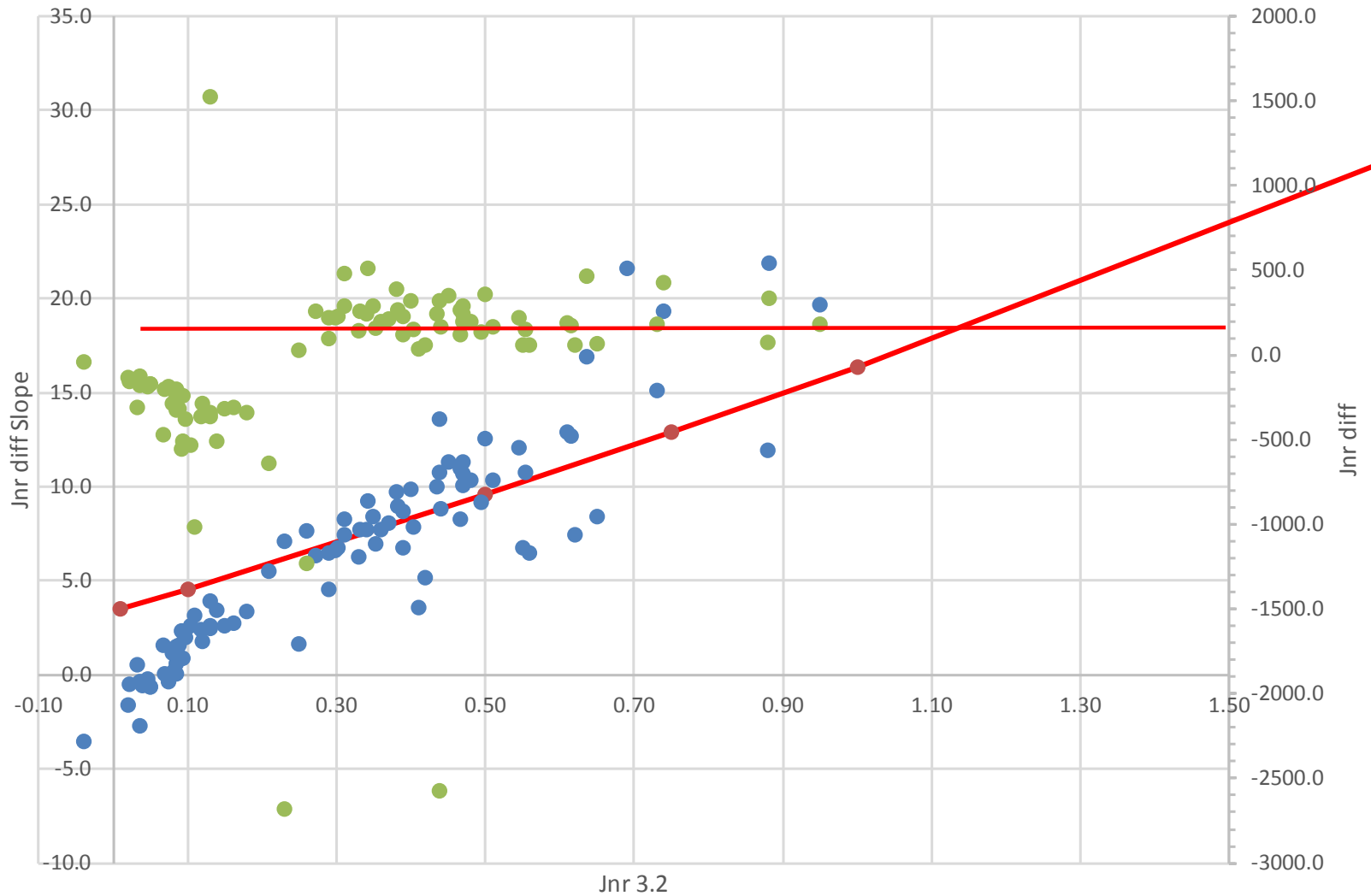
# Jnr Slope

- Jnr diff  $(Jnr3.2 - Jnr0.1)/Jnr0.1$
- Jnr diff slope  $(Jnr3.2 - Jnr0.1)/3.1$  or  $(Jnr0.8 - Jnr3.2)/2.4$

# New Arizona State Procedure



# Comparison of Jnr diff to slope



# Next steps

- Collect data on  $J_{nr}$  slope
- Collect data on  $J_{nr0.8kPa}$  to calculations of both slope and  $J_{nr}$  diff