

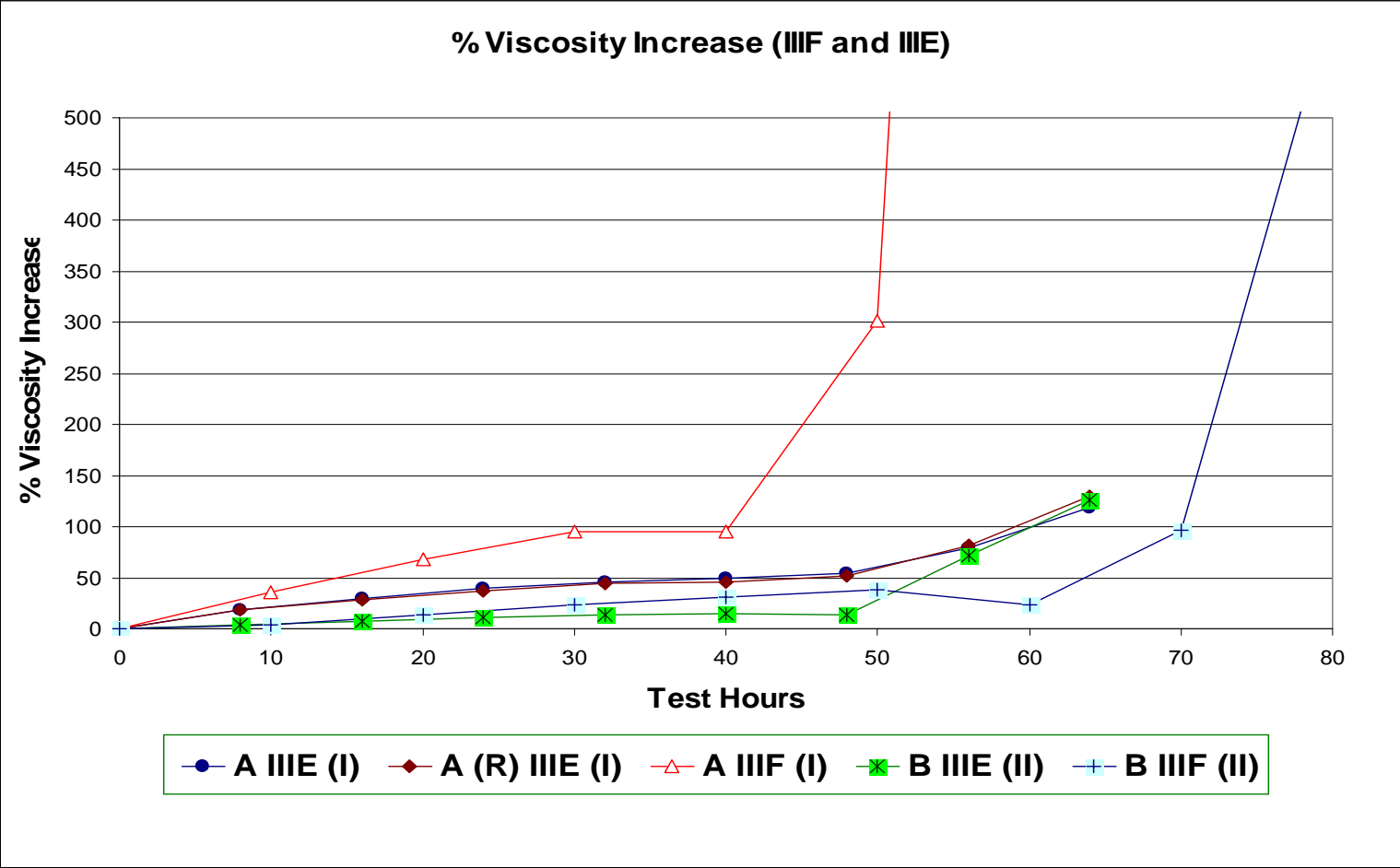
Lubrizol Proposal for Sequence IIF to Sequence IIE Correlation for API “C” Categories

May 10, 2001

Correlating the Sequence IIIF to IIIE for use in API “C” Categories

Oil Code	Oil Quality	SAE Viscosity Grade	Base Oil Group	IIIE% Viscosity Increase @ 64 hrs.	Predicted IIIF Viscosity Performance	IIIF% Viscosity Increase @ 60 hrs.	IIIF% Viscosity Increase @ 80 hrs.
Oil A (Original)	CH-4/SJ	15W-40	I	A IIIE (I) 119	Fail	A IIIF (I) 2784	A IIIF (I) 9761
Oil A (Repeat)	CH-4/SJ	15W-40	I	A (R) IIIE (I) 130	Fail		
Oil B	CH-4/SJ	15W-40	II	B IIIE (II) 126	Pass	B IIIF (II) 23.2	B IIIF (II) 614.2

Correlating the Sequence IIIF to IIIE for use in API "C" Categories



Correlating the Sequence IIF to the Sequence IIE for use in API “C” Categories

- Recommendations:

Viscosity increase limits based on the data from the oils run in both IIE and IIF Tests.

- Adopt a IIF Limit for API CG-4:

325% Viscosity Increase @ 60 hours

- Adopt a IIF Limit for API CH-4:

295% Viscosity Increase @ 60 hours