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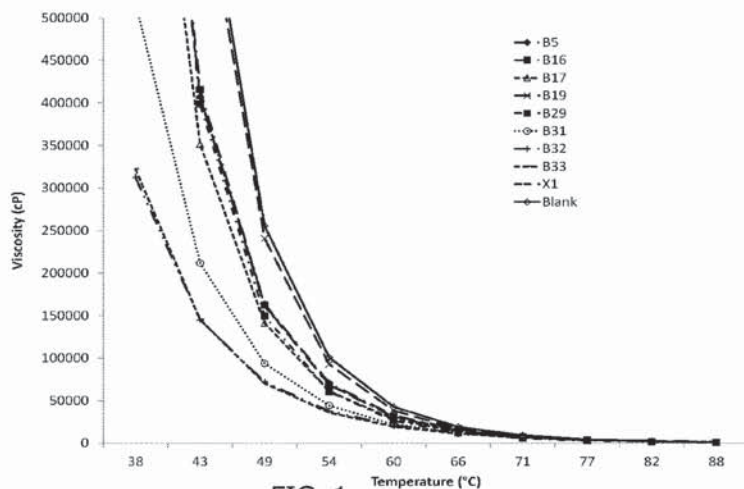


FIG. 1

(57) Abstract: The present invention generally relates to methods for enhancing production and transportation of heavy and extra-heavy crude oil and for reducing the growth of asphaltene flocculants or hindering their formation, the methods comprising contacting an oil-soluble composition that comprises polyetheramines, tallow amines, tallow diamines, alkylphenol-formaldehyde resins, reaction products of alpha-olefin, maleic anhydride and pentaerythritol, or a combination thereof, with the heavy or extra-heavy crude oil.