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[54] **THERMALLY RESPONSIVE AQUEOUS SILICATE MIXTURES AND USE THEREOF**

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[52] **U.S. Cl.** **166/288**; 106/38.23; 106/80; 166/292; 166/300
[58] **Field of Search** 166/292, 288, 300; 405/266; 106/80, 900, 38.23

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[57] **ABSTRACT**

A thermally responsive aqueous silicate composition consisting essentially of an aqueous solution containing an alkali metal silicate and a thermally responsive silicate gelation activator. The thermally responsive silicate gelation activator is a reducing sugar selected from the group consisting of lactose, dextrose, fructose, galactose, mannose, maltose, xylose and mixtures thereof. The aqueous silicate composition can be utilized in treating a subterranean formation for the purpose of sealing the formation.

20 Claims, No Drawings