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A REVIEW OF DRY BLENDING TECHNIQUES OF LIGHTWEIGHT CEMENTS AND THEIR IMPACT ON CEMENTING TREATMENTS

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ABSTRACT

Dry blending of additives into bulk cement is used in most cementing operations in Western Canada. It is essential for a successful cementing treatment that these additives be consistently dispersed throughout the cement. Lightweight cement blends are particularly difficult to blend properly due to a difference in the density of the materials. Some dry blending techniques are better than others at properly blending these cements. This paper discusses the various cement dry blending techniques that are utilized in the industry today and presents the pros and cons of each. The paper also discusses how this variation in cement properties has a significant effect on the performance of the cement. Two different lightweight cements are presented – one blend that is relatively common in the industry as well as one that is novel. Laboratory tests are presented which show the variation in properties for the two cement blends depending on the blending technique used.

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