

Date: June 23, 2020

To: Eric Scott

From: Tim Cazier, P.E.

RE: Ragsdale Reservoirs, DRMS File No. M-2020-007;

Adequacy Review - June 5, 2020 Cannon Lands Slope Stability Technical

Memorandum by Deere & Ault - Seismic Evaluation Resolved

The Division of Reclamation, Mining and Safety (DRMS) engineering staff has received additional information regarding Deere & Ault's seismic evaluation. Through external resources, additional earthquake information/tools have clarified the 2% exceedance in 50 years (I'm used to seeing that as a 1 in 2,475 year recurrence interval) is "a" standard and appears fairly conservative. Using the USGS tool (https://earthquake.usgs.gov/hazards/interactive/), I was able to confirm the 0.09 g value Deere & Ault used.

We can retract the second adequacy question in my June 19, 2020 memo. However, it would have been helpful if Deere & Ault had provided some background and a source for their 0.09 g value for seismic acceleration. They only reference "USGS 2014" and provide no back up.

