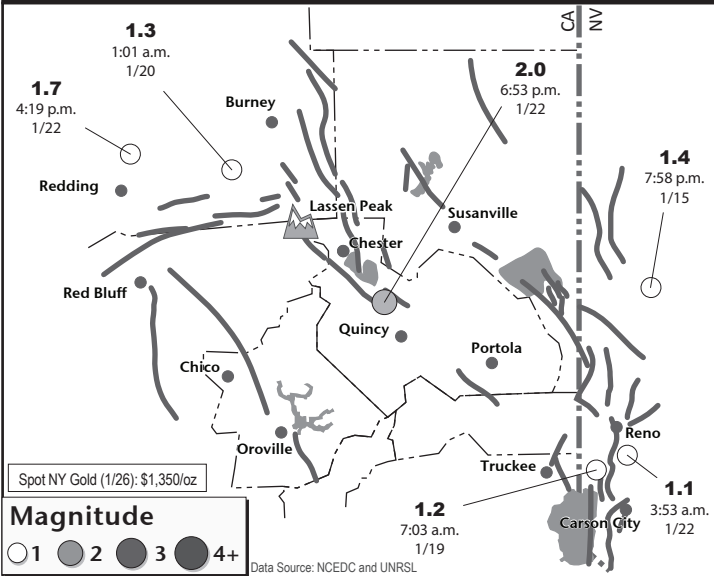


Earthquake Report

January 18 - 24, 2018

By: Charles P. Watson, California Professional Geologist No. 7818



Magnitude M≥1	1	2	3+	Total
Regional	5	1	0	6
Previous week	48	6	0	54

■ The Steamboat earthquake swarm that shook the south Truckee Meadows region last week with more than 45 quakes measuring M 1.0 or stronger died out to only a single jiggle recorded this week. It measured a modest M 1.1 and occurred at 3:53 a.m. on January 22. Surely a quake of this size passed without any felt reports. Researchers are still wondering what may have caused the sudden surge in seismic activity. As of yet, there are no reports of changes to the hot springs that dot the

area and the owners of the geothermal power plant (ORMAT) have not commented on the activity. Geology of the Steamboat geothermal area is relatively simple - Mesozoic granodiorite overlain by Tertiary volcanic and sedimentary rocks - but the heat source is not well understood. It is likely open fractures within active faults allow the hot geothermal fluids to come closer to the surface. This is a low temperature system and steam for power plant production has been a problem for years. A common solution has been to drill deep wells and inject cold water causing it to flash and produce steam. However, the recent earthquake swarm was centered miles below where drilling could reach.

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