

## Video 4C: Liquefaction in the Flood

Liquefaction is when a force causes water to flow up through dirt or sediments. (Quicksand is an example of liquefaction.)

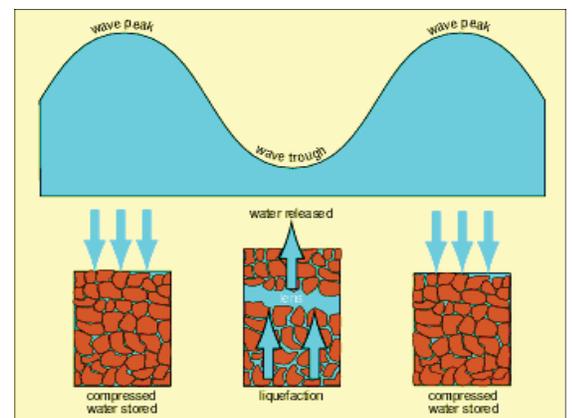
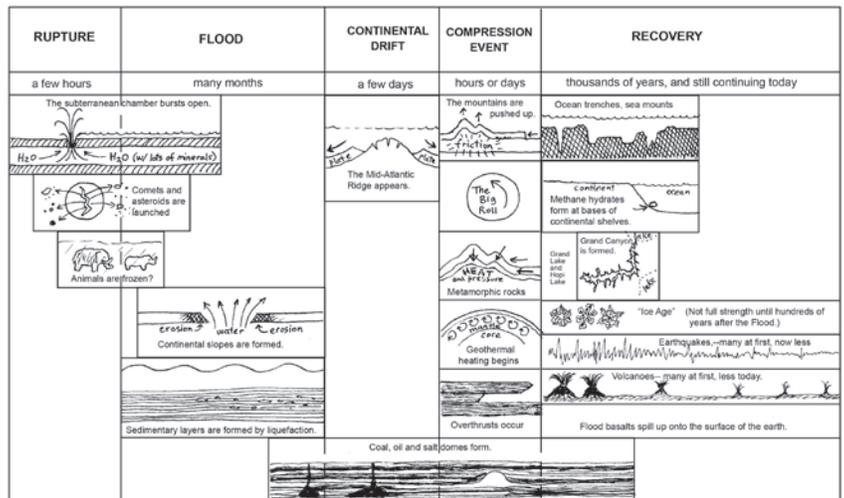
In the ITB textbook, Dr. Brown uses three examples to introduce liquefaction:

1) Small scale example: what happens when you are standing on a beach and a wave advances then recedes. You feel your feet sinking as water retreats.

2) Medium scale example: When storm waves lift pipes that are lying on the bottom.

3) The great earthquake of 1929 off the shore of Nova Scotia, which broke some of the Transatlantic cables. Geologists have incorrectly guessed that **turbidity** currents caused by the quake were responsible for breaking the cables. Only waves could have moved fast enough to explain the data.

During the Flood, there would have been enormous world-wide waves, the likes of which we have never seen. The fluttering of the crust would have been the main reason for these waves. Water gushed out from under the crust at regular intervals. The waves might have been a mile high. The difference in pressure between the area under a crest versus under a trough was very great. The water was also flowing laterally (sideways) as well as up and down, which increases the sorting of sediments. Great volumes of sediments were coming up from under the crust also, creating turbidity currents that rolled along under the water, blanketing everything in their path. Living things would have been covered instantly.



### LENSING could explain many observations about fossils

Lensing happens when layers of water get trapped between layers of sediments. Shown here on the right is a 2-liter bottle filled with sediments that have been sorted via liquefaction (water flowing up from the bottom). Between some layers of sediments there are "lenses" (flat pockets) of water. This occurs when the water can't flow through the type of sediment that is directly above it, often thick clays. During the flood, plants and animals could easily have gotten trapped in some of these water lenses (which would have been fairly large). While the lenses remained open, amphibians could even have walked along the bottom of the lenses while the water was flowing up through. (This could explain some mystifying fossilized foot-prints that geologists can't explain.)

When the waters began to recede and the lenses flattened and close, the trapped plants and animals were flattened. This explains all the paper thin fossilized fish we find today.



### SALT DOMES are a challenge for traditional geology to explain.

Mushy layers of salt are not very dense and would rise to the surface if they could. During the flood phase, salt could have escaped through cracks in wet layers of sediments and risen upwards.

Here we see a cross section along the Gulf of Mexico. Mainstream geologists say that these layers formed over millions of years. HPT says they formed quickly during the Flood. Can you see why HPT is a better explanation? The layers had to be in place for a dome to form, but salt cannot rise through solid rock.

Whenever you see "Triassic, Cretaceous, etc" these are layers from the Flood.

