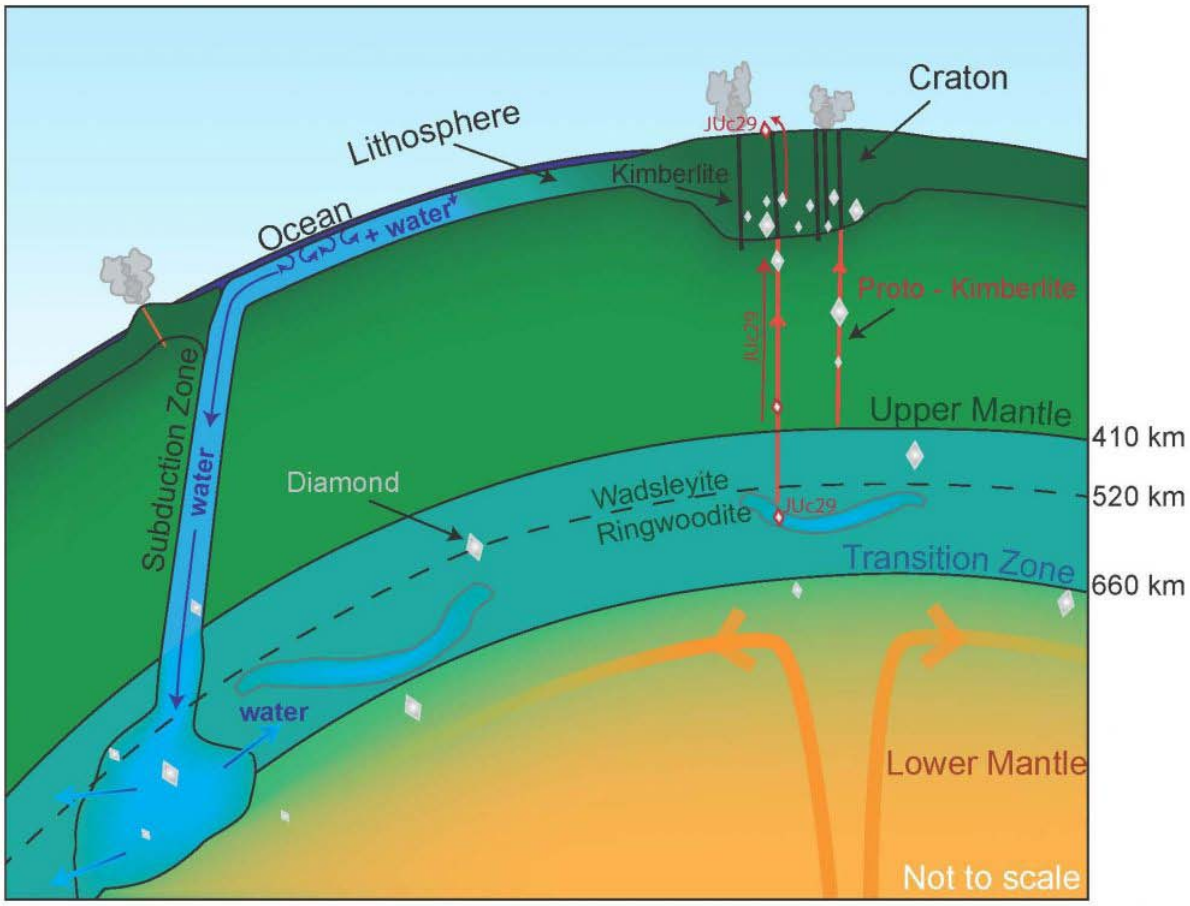
Below is one of many articles found online of recently discovered volumes of subterranean water that amass larger than all the Earth's oceans combined ..Dan

Water into the depths of the Earth

December 26, 2017 Emiliano Monroy-Rios

Ringwoodite blue crystal ~ 150 micrometers wide. Microphotograph taken at the University of Hawaii of a specimen grown in Bayreuth, Germany. Author: Joseph Smyth . Header image: The blue ringwoodite material. Steve Jacobsen, 2014.

Ringwoodite is the most common mineral phase in the lower *transition zone of* the *Earth's mantle*, at depths of *525* to *660* km. This *ringwoodite* crystal contains about 1% water. If the whole *ringwoodite* of the mantle contains this amount of water, it is estimated that there is almost three times as much water in the mantle as in all the oceans combined!



Cross section of the planet Earth (Pearson et al, 2014). Credit image: Kathy Mather.

At closer look into the cross section of the planet Earth we can identify the transition zone that separates the upper mantle from the lower mantle. Right there, diamonds are formed and together with the included *ringwoodite* -which in turn traps the water molecules- both minerals continue their journey to the surface through volcanic activity.

The first discovery on Earth of *ringwoodite* inside a diamond was made by an international team led by the University of Alberta and could indicate the presence of large amounts of water between 410 and 660 km below the Earth's surface.

Credit: University of Alberta. Source: phys.org.