This jewel is proof that there is a large sea of ?? water deep beneath the Earth's crust

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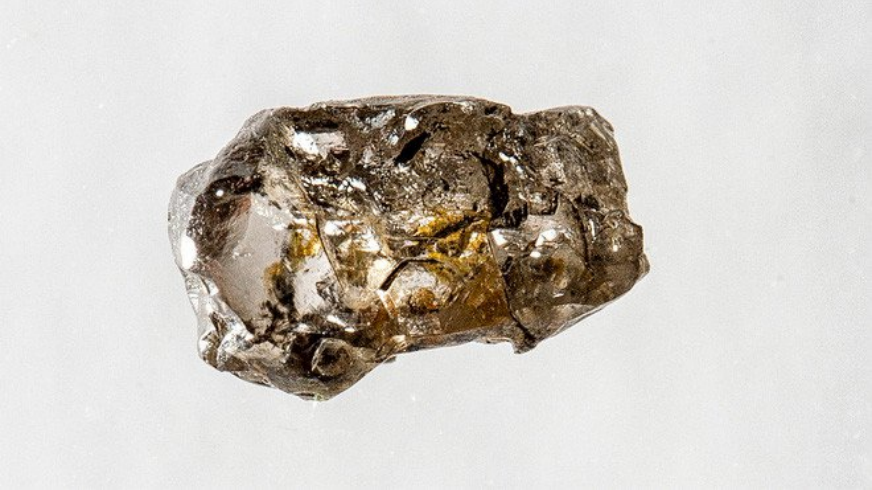
1. The Earth's magnetic field is about to reverse the polarity?
2. Super Earth's most dangerous volcano can "explode" soon causing the biggest eruption in history

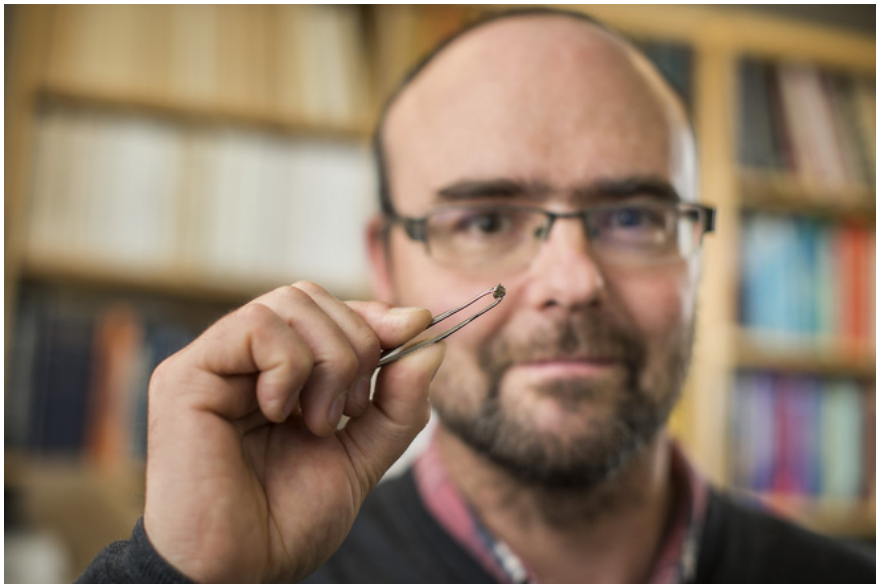
The rare gem called ringwoodite, which is diamond-expert Graham Pearson and colleagues from the University of Alberta accidentally discovered when looking for another mineral. Ringwoodite is formed when the olivine (olivine) mineral - a substance that is abundant in the Earth's crust - is subjected to an extremely high pressure and when it comes into contact with an environment of less pressure, then it becomes The state is the original olivine.



Until now, ringwoodite is only found in meteorites or created in the laboratory. This is the first time that humans have discovered it on the surface of the Earth.

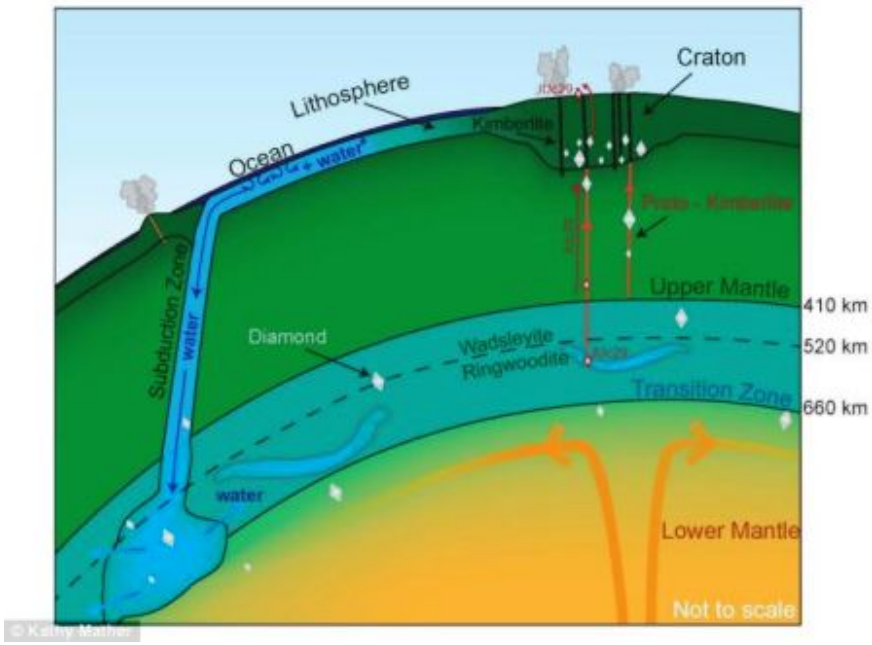
After the study, scientists found that about 1.5% of ringwoodite is water and is sealed in the jewel surface.

Over the years of analysis, using spectroscopic and X-ray diffraction methods used specifically in laboratories to analyze water depth and composition, scientists have made the claim that underground has can have water. It is even possible that there is a huge reservoir of water with the size of all oceans combined in the heart of the Earth.



Graham Pearson and ringwoodite.

Earth's crust is only about 100 km deep. There, the upper mantle (upper and lower mantle, distinguished from the outer crust - only 100 km thick) is only 300 km deep. The transition zone - the transition zone (at depths of about 410 km and 660 km) between the upper mantle and the lower mantle will be the origin of the ringwoodite.



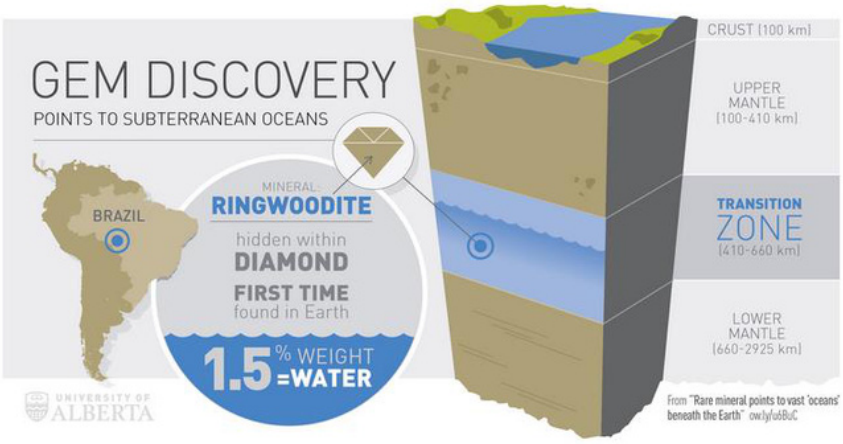
Earth's cross-section diagram shows the location of the 'ringwoodite' mineral that people have found.

What lies in this transfer area is still controversial for scientists. There is an opinion that it is a giant sea of ?? water but there are also other opinions that it is only a parched ground.

Pearson's discovery made many people change their views. He made two assumptions that came to the conclusion that this geological layer deep in the ground is rich in water.

The water in the ringwoodite tablet is made up of a water-like solution capable of hardening into crystal form. The water-like solution must be made from the surrounding environment, which is from the transfer area because there is no evidence that the lower coating can contain a large amount of water. Finally, extreme pressure and chemical composition in the depths created water.

Water and ringwoodite are already available, and ringwoodite absorbs part of the water in its surroundings. This proves that this transfer area has a lot of water.



'Ringwoodite' is formed in the interference zone between the upper and lower surfaces of the earth's crust. But how can the gem that is hundreds of kilometers deep underground appear in the ground in Brazil?

Pearson and his colleagues discovered ringwoodite while searching for volcanic rocks. Chances are, this area used to have volcanic activity and thus, ringwoodite can be brought to the ground. Fortunately, the ringwoodite is studied before it turns into the original olivine, when the ground is no longer under pressure.