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Look at a Diamond & You May See an Ocean

An interview with Professor Graham Pearson
Arctic Geochemist, University of Alberta

How can we get water from diamonds?

Modern society is completely reliant on natural resources. So we provide the technology to help find those resources more efficiently, which ultimately means less environmental damage, less effort, less money, and to find new types of resources in places that no one has thought of looking at. We work on minerals that have use to man. Actually, some of those minerals, diamonds in particular, are also really interesting scientifically and that's because diamonds give you this unique snapshot of the deep Earth. They're little time capsules that are indestructible, that come from the deepest parts of the Earth. One thing that we found recently is that some of these diamonds contain tiny little inclusions in them thousandths of a millimetre in size that have surprising amounts of water in them, and that indicates that there's huge amount of water trapped in the deepest parts of the Earth. Most water came to the Earth in the form of meteorites and comets. It gets trapped in the deepest parts of the Earth and then they it gets cycled around out of volcanoes into the atmosphere, it goes into the ocean and then that part of the cycle is then a bit of a mystery and we're trying to fill in pieces of that puzzle. So this rain that is forming today might have been in and out of the deepest parts of the Earth two or three times.

What can Canada do with its natural resources?

Resources are going to drive Canada's economy the next couples of centuries without doubt. It's an incredibly rich endowment of natural resources in Canada and we have to make sure we can capitalize that, develop it, and extract it in the most responsible way.