

## THE CAUSES THAT LEAD TO THE TRIGGERING EARTHQUAKES IN ZHARRZA AREA BY THE PETROLEUM ACTIVITY

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### ABSTRACT

The seismic activity in particular regions might be connected to human's activities like the mineral extraction, liquid (petroleum, water), or solid (chrome), but even with the hydrological effects (abundant rainfall) or with the creation of the large colons of water (the case of the energy lakes, as Fierza, Koman, etc.), which might increase the tectonic movements, that exceed the average amount during an earthquake. These correlations are followed by long periods of time (57-92 years in USA) in which the earthquakes are shown after the appearance of intensive phenomena such as, abductee showers, pumping and water extraction. These results support the hydro-seismic hypothesis, which shows the role of water in the inter-plate seismicity. Analysing the seismic activity for the all studying region, we might say that in these regions, where the strain degree and seismicity degree is relatively high and even the stress is high, the conditions of the manoeuvre activity for the benefit of hydrocarbons might be another factor in the release of seismic energy through a pure tectonic process.

**Keywords:** Human's activities, earthquakes, the dynamic balance of the rock, the rocks strain, rock structures, seismic gaps, the collapses and the sinking.