

Spatio-Temporal Variation of Stress Drop Observed at Carthage Cotton Valley Gas Field, Texas

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Understanding source characteristics of hydraulic fracturing induced microearthquakes is expected to provide a better understanding of the fracturing process and the influence of pre-existing structures controlling the distribution of events. Especially it is still controversial whether the events are associated with volumetric change or not. To address this question, we estimated the source parameters using the empirical Greens function analysis.

Keywords: Stress Drop, Hydraulic Fracturing, Induced Seismicity, Pore Pressure