

The caliper log represents the average borehole diameter determined by the extension of 1 or 3 spring-loaded arms. The measurement of the borehole diameter is determined by the change in pulse frequency related to caliper arm movement. One important application of the caliper measurement is to identify intervals where rough borehole walls or washouts have introduced large errors into such logs as neutron porosity and other measurements where log response is effected by borehole enlargement or "rugosity". The caliper log is often a useful indicator of fracturing. The log anomalies do not directly represent the true in-situ fracture size or geometry. Instead, they represent areas of borehole wall breakage associated with the mechanical weakening at the borehole-fracture intersection. Caliper anomalies may represent fractures, bedding planes, or solution openings. Additionally, as with other geophysical measurements, a repeat section should be collected and compared with original logs for consistency and accuracy. A caliper log is a well logging tool that provides a continuous measurement of the size and shape of a borehole along its depth[1] and is commonly used in hydrocarbon exploration when drilling wells.