SWS AAPG Bill Hailey Memorial Continuing Education Short Course

Subaqueous mass failures: Processes, Deposits and Implications of their occurrence in exploration and production of energy resources

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SUMMARY

Submarine and sublacustrine landslides are ubiquitous in the rock record, and in the modern submarine landscapes of the world. These phenomena are responsible for some of the largest tsunamis, some of the most catastrophic destruction of marine and lacustrine facilities and some of the most interesting hydrocarbon plays in the world! This one-day engagement will focus on recognition of different types of subaqueous landslide deposits in seismic, core, logs and outcrop, even thin sections! We will discuss the role of these types of deposits in hydrocarbon-rich basins from regional influence on sediment pathways to sealing hydrocarbon traps. Lacustrine subaqueous mass failure deposits will be discussed as well as mixed carbonate-clastic failures that characterize the Permian Basin of West Texas. We will intersperse lively conversation with a couple of key interpretation and risk exercises to re-enforce how we can interpret these interesting deposits. This course is suitable for geologists, engineers and geophysicists, as well as anyone having to make management decisions in areas characterized by mass failures. That would be just about the entire world!

BIO

Dr. Wood joined the faculty at Colorado School of Mines in 2015 as the Robert J.Weimer Distinguished Chair and Professor in Sedimentary and Petroleum Geology, where she is Professor and Director of the Sedimentary Analogs Database and Research Program (SAnD). Prior to joining CSM, Dr. Wood held positions at the University of Texas at Austin, Amoco Production Company and Arco. Dr. Wood specializes in quantitative seismic geomorphology of clastic basins, tectonics and sedimentary system interactions, submarine and sublacustrine mass failures, petroleum geology, shales tectonics and geomorphology of Mars. She has served as SEPM Society for Sedimentary Geology national Secretary-Treasurer, the GCSSEPM President and is active in AAPG. Dr. Wood has published widely on the nature of modern and ancient deep- to shallow-water systems around the world and, she and her students have won numerous best paper and poster awards.