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1. *Research Conducted at University of Texas Austin Has Updated Our Knowledge about Geology (Submarine-channel Meandering Reset By Landslide Filling, Taranaki Basin, New Zealand)*

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News	Timeline: Feb 01, 2024 to Feb 29, 2024

Research Conducted at University of Texas Austin Has Updated Our Knowledge about Geology (Submarine-channel Meandering Reset By Landslide Filling, Taranaki Basin, New Zealand)

NewsRx Science Daily

February 29, 2024 Thursday

Section: SCIENCE - GEOLOGY

Length: 595 words

Body

2024 FEB 29 (NewsRx) -- By a News Reporter-Staff News Editor at NewsRx Science Daily -- Current study results on Science - Geology have been published. According to news reporting originating in Austin, Texas, by NewsRx journalists, research stated, "Landslides are among the largest mass movements on Earth. As such, the deposits of landslides, also known as mass-transport deposits, are significant architectural elements of continental margins, especially those receiving sediment from large deltas."

Funders for this research include SEG SEAM, SEG Advanced Modeling Corporation (SEAM), University of Texas at Austin ***Bureau of Economic Geology*** Quantitative Clastics Laboratory (QCL), New Zealand Petroleum and Minerals, New Zealand National Institute of Water and Atmospheric Research.

The news reporters obtained a quote from the research from the University of Texas Austin, "Landslide dams have been shown to alter the courses of rivers and submarine channels. However, there are fewer examples of landslides completely filling submarine channels and examples of the subsequent stratigraphic evolution. A three-dimensional seismic-reflection dataset (<90 Hz) from the deep-water (>1500 m) Taranaki Basin, offshore the North Island of New Zealand, was used to explore the response of a sequence of channel deposits to landslide filling. The basal channel system initially meandered like a river, with successive channel positions in close proximity, as it aggraded >250 ms two-way travel time. This systematic, organised evolution is governed by the memory of early channel evolution, which sets the sea floor geomorphology that guides channel-forming turbidity currents. Later, a channel approximately twice as wide as underlying channels cut off a number of channel bends, probably as a result of an increase in the discharge of channel-forming turbidity currents. This last channel was filled with submarine landslides, which transported and deposited sediment as debris flows based on the presence of blocks within a matrix comprising chaotic, lower amplitude seismic facies. These debris-flow deposits smoothed over the sea floor, effectively wiping the memory of channel evolution. As a result, the subsequent channel pattern bears no resemblance to the basal system."

According to the news reporters, the research concluded: "Submarine-channel resetting by landslide filling is common in settings with frequent catastrophic basin-margin collapses, like offshore New Zealand."

For more information on this research see: Submarine-channel Meandering Reset By Landslide Filling, Taranaki Basin, New Zealand. The Depositional Record, 2024. The Depositional Record can be contacted at: Wiley, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting Jacob A. Covault, University of Texas Austin, Jackson School of Geosciences, Bur Econ Geol, Austin 78713, TX, United States. Additional authors for this research include Zoltan Sylvester and Dallas B. Dunlap.

The direct object identifier (DOI) for that additional information is: https://doi.org/10.1002/dep2.267. This DOI is a link to an online electronic document that is either free or for purchase, and can be your direct source for a journal article and its citation.

Keywords for this news article include: Austin, Texas, United States, North and Central America, Geology, Science, University of Texas Austin.

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