Publication information

Geological Survey of Canada

Open File 8310

Downhole geophysical data in a shallow bedrock aquifer near Sussex, New Brunswick

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Permanent link: https://doi.org/10.4095/306173

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Recommended citation

Crow, H, Cartwright, T, and Ladevèze, P. 2017. Downhole geophysical data collected in 10 boreholes near Sussex, New Brunswick; Geological Survey of Canada, Open File 8310, 1 .zip file. https://doi.org/10.4095/306173

System requirements

PC with 486 or greater processor, or Mac® with OS® X v. 10.2.2 or later; Adobe® Reader® v. 6.0 or later; video resolution of 1280 x 1024.

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Contents

The Geological Survey of Canada (GSC) is investigating the vulnerability of shallow aquifers to deep gas development in Sussex, New Brunswick. To support the project, downhole geophysical logs were collected in 10 GSC-drilled observation wells (50 to 80 m in depth) to better understand the in situ lithological, geomechanical, and hydrogeological properties of the near-surface bedrock. The suite of logs included natural gamma and gamma-gamma density, televiewer imagery (optical and acoustic), acoustic logs to compute compressional (P-) and shear (S-) wave velocities, and fluid logs (temperature, conductivity, flow). Logs are interpreted alongside GSC core and cuttings descriptions, and results are discussed in the context of deeper (260 – 770 m) industry-collected logs. This report summarises the downhole geophysical data acquisition and analyses, and provides log suites and digital data in appendices.

Directory structure

of\_8310\_readme.rtf

of\_8310.pdf (includes report and Appendices A and B)

Appendix C (contains 16 files)

PO-01.las

PO-02.las

PO-03.las

PO-04.las

PO-05.las

PO-06.las

PO-07.las

PO-09.las

PO-10.las

McCully\_structural orientations.xlsx

PO-01 Heat pulse flow meter test.xlsx

PO-02 Heat pulse flow meter test.xlsx

PO-03 Heat pulse flow meter test.xlsx

PO-04 Heat pulse flow meter test.xlsx

PO-07 Heat pulse flow meter test.xlsx

PO-09 Heat pulse flow meter test.xlsx

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