

A METHODOLOGY FOR CONDITION ASSESSMENT OF PRESSURE WATER MAINS

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ABSTRACT

This paper discusses Cost-Effective Methodology for conducting condition assessment of buried pressure water and waste water mains, based on operation of a condition assessment business in Australia, Singapore and Hong Kong for more than 10 years, investigating more than 2500km (1500 miles) of mains. The methodology has substantially changed from a simple one-system approach, to utilisation of many techniques, with development of proprietary algorithms delivering key outputs. The current methodology uses a variety of proven techniques in a step-wise approach, so as to deliver a cost-effective solution to Water Utility Management. These techniques include Linear Polarisation Resistance (LPR) soil testing, hand-held Remote Field Technique (RFT), ultrasonics (UT), pressure monitoring, and coating defect surveys (CDS) for coated steel pipe. It also addresses some new technologies that can be implemented within the Methodology.

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