Review of Linear Polarisation Resistance (LPR)

Background

This project investigates the relationship between condition (assessed by LPR) and predictive failure rates. This work will increase industry awareness of when to use the LPR technique and explore its benefits and limitations through the use of industry case studies. This technique has been commercially used in Australasia for some years and a number of companies now offer the technique either as an adjunct or as a principal method to carry out condition assessment.

The main purpose of this study was to report on the present methods of carrying out LPR and the associated statistical extrapolations, as well as investigating emerging competitive methodologies. The outcome is a report documenting the most appropriate use of LPR for condition assessment.

This work has been carried out by David Nicholas of Nicholas Corrosion Ltd. The project methodology for this study was largely based on a combination of desk review, phone and personal interview, survey of WSAA utilities, discussions with key utilities and, importantly, key service providers and researchers. Some small workshops were held to address some specific issues with both the LPR technique and associated software/algorithm issues.

This project was completed October 2006.

Outcomes and benefits

Outcomes:

- Report: Review of Linear Polarisation Resistance

Benefits:

- Document the most appropriate use of LPR for the water industry.
- Increase industry awareness of when to use the LPR technique.
- Remove bias and provide a full understanding of the process so a sound basis for the LPR technique and resultant failure prediction algorithms can be better understood.

How to purchase

This subscription project was funded by participating WSAA Member utilities. Non-participating WSAA Members and those without WSAA membership will be required to purchase the project deliverable. The deliverable will only be made available to water utilities. Prices will be calculated according to a utility's number of connections.

Participating members can access this project via the WSAA Member Portal. If you do not have access to the portal please contact web@wsaa.asn.au.

Further Information

Dr Jaimie Hicks

Customer Development Manager

E jaimie.hicks@wsaa.asn.au

P (03) 8605 7605