

EUSLDC9

Determine the location of water loss



Overview

This unit is designed to demonstrate competence in techniques to determine the exact location of water loss on mains and service pipes. You will need to select appropriate equipment, connect it and configure it where required. You will need to accurately interpret the test results, taking into consideration the configuration and composition of the pipework; to identify and verify the position of the leak; and to record and report the details.

Hygiene procedures should be followed at all times.

EUSLDC9

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Performance criteria

You must be able to:

Determine the exact location of water loss (leak-noise correlation techniques)

- P1 select appropriate equipment for the detection activity, and you confirm it is in working order and safe to use
- P2 connect the equipment correctly, and set up and configure the equipment according to the data available on the suspect main
- P3 accurately interpret the test results and identify and verify the location of the leak
- P4 mark the position of the leak in accordance with organisational requirements
- P5 dismantle, clean and return the equipment to storage in accordance with organisational requirements
- P6 record and report the position of the leak including local environmental and traffic conditions, where appropriate, in accordance with organisational requirements
- P7 report relevant details to the required person for further investigation purposes where the location of the leak is unable to be identified
- P8 follow safe working and hygiene processes in accordance with approved procedures and practices

You must be able to:

Determine the exact location of water loss (acoustic listening techniques)

- P9 select appropriate equipment for the detection activity and confirm it is in working order and is safe to use
- P10 set up the equipment to provide the hearing sensitivity needed to locate the leak
- P11 correctly identify and verify the location of the leak
- P12 mark the position of the leak in accordance with organisational requirements
- P13 dismantle, clean and return the equipment to storage in accordance with organisational requirements
- P14 record and report the position of the leak in accordance with organisational requirements
- P15 report relevant details to the required person for further investigation purposes where the location of the leak is unable to be identified
- P16 follow safe working and hygiene processes in accordance with approved procedures and practices

EUSLDC9

Determine the location of water loss

Knowledge and understanding

You need to know and understand:

Determine the exact location of water loss (leak-noise correlation techniques)

- K1 the importance of checking the equipment and its calibration
- K2 the limitations of leak-noise correlation equipment
- K3 how to set up and configure leak-noise correlation equipment
- K4 how to interpret test results and the implications of pipework configuration on them
- K5 the importance of verifying the location of the leak
- K6 procedures for marking the location of leaks
- K7 procedures for dismantling, cleaning and storing equipment
- K8 recording and reporting procedures
- K9 Why you may not be able to locate the leak and who to inform
- K10 safety and hygiene specifications and procedures
- K11 implications of use of equipment on water quality

You need to know and understand:

Determine the exact location of water loss (acoustic listening techniques)

- K12 the importance of checking the equipment
- K13 the limitations of acoustic listening equipment
- K14 how to use hand-held listening tools
- K15 the importance of verifying the location of the leak
- K16 procedures for marking the location of leaks
- K17 procedures for dismantling, cleaning and storing equipment
- K18 recording and reporting procedures
- K19 why you may not be able to locate the leak and who to inform
- K20 safety and hygiene specifications and procedures
- K21 implications of use of equipment on water quality

EUSLDC9

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Additional Information

Glossary

Approved procedures and practices

Regulatory, Health, Safety and Environment, relevant company procedures, emergency

Connect using

Hydrophones, cables, accelerometers

Equipment:

Electronic, non-electronic

Location of the leak

Metallic pipework, mains pipes, non-metallic pipework, service pipes, complex pipework (covering linear and non-linear configurations)

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Developed by Energy and Utility Skills

Version number 1

Date approved March 2007

Indicative review date March 2012

Validity Current

Status Original

Originating organisation Energy and Utility Skills

Original URN LD&C9

Relevant occupations Engineering; Building and construction; Process Operatives

Suite Leakage Detection & Control

Key words service pipes; mains pipes