



Don't learn safety by accident

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WHAT HAPPENED?

On 22 October 2020, an incident occurred while demolishing the concrete base of a lamp post using a method called **hydrodemolition**. The hydrodemolition methodology, which operates at pressures between 15,000 – 50,000 psi, inadvertently damaged utility services located beneath the lamp post, including a 100mm PE MP4 gas main, a 400V electricity cable and a Vector Fibre cable. **Hydrovac** is a similar methodology to hydrodemolition and has become more commonly used around utility assets, however, it operates at much lower pressures. An investigation was carried out and discovered that there is uncertainty in the industry regarding what methodologies and pressure limits should be used around utilities. Subsequently, industry research and testing of a range of hydrovac pressures was undertaken.

RESEARCH FINDINGS

Electric Gas and Southey's Group conducted several hydrovac tests on 4 December 2020. The purpose of the study was to test the damage caused using various pressures on several different types of gas pipes (steel, PE etc) and their relevant protective coatings. Results from this testing showed that damage occurred at higher pressures but not at 1,500 PSI or below.

Industry research was also conducted which supports these findings. Full reports are available on request.

WHAT ACTIONS ARE REQUIRED?

Vector requirements for hydrovac use around Gas, Electricity and Fibre:

- Hydrovac wands must **never remain motionless** at any time during excavation
- No part of the apparatus used is permitted to touch an underground asset at any time and the tip of the wand nozzle must be kept at least 300mm away from any Vector utilities
- Below a depth of 300mm, water pressure shall not exceed **1,500 PSI**

Vector encourages the use of spinning nozzles (less likely to cause damage) where possible around underground assets. While not practical in all situations (ground conditions), the use of Airvac's are also an option and typically operate at lower pressures and thought to be less likely to cause damage though more testing is required.

Careful and safe hand digging remains a good option for locating utilities.

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In an emergency or for reporting damage please call: 0508 VECTOR