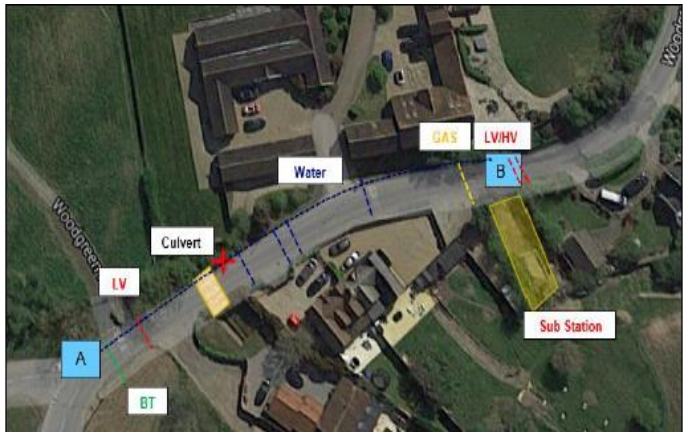
Learning Bulletin – High Voltage Service Strike – London Infra – JBrowne Construction

What Happened?

On Wednesday 5th May, a team were carrying out a directional drilling activity to replace a water main in the North London area and had already successfully drilled 1.4kilometers of water main.
On 6th May at 3pm, after reports of a fault, UKPN (the asset owner) attended site and notified the team that an 11kV cable had been damaged in the area they had been directional drilling.

Point of impact

Newly installed pipe



Overlay of the utility crossing points on the directional drilling path exposed by the site team

Examples of reamer's

Zero incidents
Zero harm
Zero compromise
Keeping you healthy and safe, every day at work.

Why did it really happen?

- The site team failed to identify the HV crossing from the poor-quality utility drawings provided to highlight the area as high risk
- The 11kV cable straddles two drawings/ tiles and was obscured by the boundary thick black line
- The team did not carry out a full sweep of the area using a G-CAT4 and relied on the utility drawings to identify crossing points and utility directions
- The process was not followed to complete a final sweep of the route prior to drilling
- Complacency from the site team may had been a factor due to this being the final drill, following the successfully drilled of 1.4 kilometres
- The cable was not damaged during the initial drill. Once the reamer (with the pipe attached) was brought back, the reamer came in to contact with the cable

What can I do differently?

- All personnel carrying out utility surveying need to be trained on the equipment (CAT & Gennie) to the correct level and on how to interpret utility drawings effectively
- Ensure all utility drawings clearly identify the services to scale, are in colour and that cross sections are shown and dated within the last 3 months - if unclear, stop work and escalate to your supervisor
- You must allow sufficient time and resources to positively locate and record all services
- A final sweep of the work area must take place prior to starting any directional drilling activity – Always follow your method of work and Risk Assessments
- Utility drawings should only be used as a guide to assist with surveys, not a checklist
- Ensure HSG47 - safe digging practices are applied, including trial holes to identify services
- Use locating devices with data logging capability, such as the G-CAT4