



**T Level Technical Qualification in  
Maintenance, Installation and  
Repair for Engineering and  
Manufacturing**

**Employer-Set Project  
(8730-033)**

**Task 1  
Summer 2023**

## Task 1 – Research

You have been asked to help respond to the project that WaterFix Solutions has allocated. You need to research different methods of modifying the chlorine dosing system in line with the specifications provided by A2B Water.

With reference to the project brief, you are to conduct research into possible potential causes of the issue and modifications that can be implemented. Research conducted should be used to determine:

- possible causes of the fault reported by A2B Water
- suitability and functionality of already installed parts and components
- flowrate calculations, set points, operating parameters and any calibration requirements
- potential modifications to the system
- estimated costs of any modifications
- laws and regulations that apply to the system and any suggested modifications.

When conducting your research consider:

- pre-existing installation of components and pipework
- environmental factors relative to where the system is situated
- management of chlorine, including the effect this can have on the environment and public
- health and safety regulations that impact any access arrangements, modifications, and final testing.

You must collate the findings from your research into a technical brief capturing all requirements for system modifications.

The technical brief will typically be 1500 words. The document can include sourced pictures, engineering drawings, schematics, images, specifications, and CAD diagrams and sketches. You must include a list of your references/sources alongside your research notes. References/sources are not included in the 1500 word count.

You must also provide any notes and calculations made as part of your research, including details of your research approach and how you planned your research.

## Timing of assessment

- You will have **three hours** to carry out the research and complete the technical brief.

## Conditions of assessment

- Your technical brief should be completed working alone under supervised conditions.
- You must not share or discuss your work with other candidates.
- You will have access to the Internet to conduct your research.
- Assessment evidence must be handed in at the end of each session for secure storage which cannot be accessed.

### **What you must submit on completion of this task**

- Technical brief (typically 1500 words) hard copy or file saved securely (e.g., in a secure online location or on memory stick to be handed in).
- Research notes.
- List of references/sources.

### **Additional evidence of your performance that will be captured for marking**

- N/A

### **Marks available**

- 15

## Get in touch

City & Guilds Technicals Quality Team

We are here to answer any queries you may have regarding your T Level Technical Qualification delivery.

Should you require assistance, please contact us using the details below:

T: 0300 303 53 52 (Monday - Friday | 08:30 - 17:00 GMT)

E: [technicals.quality@cityandguilds.com](mailto:technicals.quality@cityandguilds.com)

W: [cityandguilds.com/tlevels](https://cityandguilds.com/tlevels)

The T Level is a qualification approved and managed by the Institute for Apprenticeships and Technical Education.

Copyright in this document belongs to, and is used under licence from, the Institute for Apprenticeships and Technical Education, © 2023. 'T-LEVELS' is a registered trademark of the Department for Education. 'T Level' is a registered trademark of the Institute for Apprenticeships and Technical Education. 'Institute for Apprenticeships & Technical Education' and logo are registered trademarks of the Institute for Apprenticeships and Technical Education.

Every effort has been made to ensure that the information contained in this publication is true and correct at time of publication. However, City & Guilds products and services are subject to continuous development and improvement, and the right is reserved to change products and services from time to time. City & Guilds cannot accept responsibility for any loss or damage arising from the use of information in this publication.

City & Guilds Limited (Reg No 16513878). All rights reserved. City & Guilds is a trademark of City & Guilds Limited.  
City and Guilds Group Giltspur House, 5–6 Giltspur Street London EC1A 9DE