

# ANDREW BAILLIE

48/7 Duff Street • Edinburgh, EH11 2HW • andrew.baillie@scottishwater.co.uk • +44 (0)7500 830450

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## EDUCATION

### **Heriot-Watt University, Edinburgh**

**2010-2016**

*Accredited MEng Chemical Engineering with Oil and Gas Technology and Diploma in Industrial Training*

Expected Result: 1<sup>st</sup> (Grade average to date 74%)

### **Perth Grammar School, Perth**

**2004-2010**

**Highers:** 5 - including Mathematics, English and Chemistry

**Standard Grades:** 6 - Grades 1 & 2

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## RELEVANT WORK EXPERIENCE

### **Specialist Graduate: Scottish Water**

**September 2017 – Present**

*Edinburgh, Scotland, UK*

Objective: To develop an understanding of the roles and functions within the wastewater strategy sector of the business by rotating through the business in four placements, rotating every six months.

Responsibilities:

- Assessed site consents, flow and load data and current capacities for the business's list of potential growth sites within the strategic review 2021 period
- Assessed current site capabilities to provide a summarised overview of the current constraints and capabilities of selected problem sites
- Conducted DSEAR assessments for various sites, including pumping stations and treatment works, while advising of hazardous areas and ensuring mitigations are in place
- Analysed sewer maintenance schedule, successfully eliminating a number of redundant assets from the maintenance schedule while improving the issuing sequence to improve maintenance adherence

### **Project Scientist: Solid Form Solutions**

**September 2016 – May 2017**

*Edinburgh, Scotland, UK*

Objective: To communicate with clients in order to write and execute crystallisation research project proposals; to provide recommendations for continued research and methods for effective process scale-up.

Responsibilities:

- Organised work load to ensure timely delivery of high quality results and documentation
- Evaluated and troubleshooted a variety of client technical and operational issues, utilising a methodical approach to quickly and effectively resolve problems. This was used to restart the operation of a critical instrument that had previously failed to operate.
- Managed the introduction of new equipment, which required preparation of all necessary documentation, monitoring of progress and communication with management
- Analysed client samples in full compliance with official controlled methods and procedures

**Objectives:** To operate as the engineer on the pilot scale manufacture of a phase 3 drug product; provide process and safety recommendations; identify and remedy process problems.

**Responsibilities:**

- Managed the manufacture of an early phase drug product, successfully communicating with the large team and stakeholders; developing a clear methodology and motivating the team to complete the project on time
- Used process data to analyse and identify source of a particle size drop in a drug product
- Solved problems at pilot plant scale by applying lab scale understanding
- Calculated volatile organic compound emissions, which was used to ensure that the pilot plant did not exceed permit and government limitations
- Regularly communicated with the small team and presented at team meetings, utilising teamwork to solve challenging and open ended problems
- Gained responsibility of a large database of vessel sizes and locations, with the expectation to organise the database and ensure it was kept up-to-date

**Achievements:**

- I solved a challenging problem by using information analysis, teamwork and my technical knowledge to improve the understanding of a drug product.
- I used evidence-based solutions to resolve arguments. By justifying an assessment of the operation of a piece of equipment in an alternative manner, I reduced the expected delivery date of a product.
- I successfully developed effective solutions to unique scale-up challenges, using new software and tools along with calculating correct scale-up equipment sizes.
- I utilised process simulation software to successfully model a pilot plant process.

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## **IT AND SOFTWARE PACKAGES**

- I am literate in Mac OS X, Microsoft Windows and Office. I also have extensive knowledge of Matlab, Aspen, Aspen HYSYS, Labwise, and Dynochem.
- I am proficient in Excel Visual basic and have knowledge of Python.

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## **INTERESTS AND ADDITIONAL INFORMATION**

- I completed my bronze Duke of Edinburgh award, which involved extensive team working, learning new skills quickly and motivating others
- Basic understanding of German
- Full UK car and motorbike licence (clean)