



OCTOBER 2023 – OVERVIEW & UPDATE

- ✓ ***In excess of £1.4M in cash***
- ✓ ***Utility Contractor/equipment development program making solid progress***
- ✓ ***Active discussions continue with UK water companies & international utility contractors***
- ✓ ***100% increase in international granted patents***
- ✓ ***UK Water companies plan to invest £96bn to coincide with Aqualiner's planned commercial launch***
- ✓ ***Aqualiner addresses new global markets***

Current Status

- Unique technology for replacing existing drinking water pipes***
- Process has UK & US Regulatory approval for installation in public drinking water pipes***
- Completed first live drinking water installation with Severn Trent Water Plc***
- Cuts water pipe replacement cost by up to 50% and increases the speed, by up to 10 times, of traditional pipe replacement***
- Global business opportunity with expanding patent portfolio with 16-year life until 2039***
- Environmentally friendly technology and product – no chemicals and low carbon footprint***

Key Target Milestones

- ✓ ***Complete the development of the contractor ready commercial installation equipment***
- ✓ ***Lower cost approved lining material supply***
- ✓ ***File additional patent applications to build on the 26 existing patent grants***
- ✓ ***UK launch of commercial installation equipment***
- ✓ ***Negotiate the first commercial licences for the plant and equipment***
- ✓ ***Start planned UK roll out of the Aqualiner solution***
- ✓ ***Complete negotiations for a series of global territorial licenses***

This document contains certain forward-looking statements with respect to the financial condition, results of operations and business achievements/performance of Aqualiner and certain of the plans and objectives of management of Aqualiner with respect thereto. These statements may generally, but not always, be identified by the use of words such as 'should', 'expects', 'estimates', 'believes' or similar expressions. By their nature, forward-looking statements involve risk and uncertainty because they reflect Aqualiner's current expectations and assumptions as to future events and circumstances that may not prove accurate: a number of factors could cause Aqualiner's actual financial condition, results of operations and business achievements/performance to differ materially from the estimates made or implied in such forward-looking statements. No representation or warranty (expressed or implied) is given as to the accuracy or completeness of the contents of this document and no liability is accepted for its contents or any omissions from it.

Business Overview/Review

Aqualiner has the only fully structural drinking water liner with UK regulatory approval for installation in water companies' pipe network. It is a unique patented process for renewing aged water pipes without the need to dig up the pipes. The process was developed in conjunction with Severn Trent, Anglian, Yorkshire and Wessex Water. Aqualiner completed its initial live commercial installation with Severn Trent Water. The current phase is to modify our equipment ready to be repetitively used by utility contractors.

The current activities are:

1. Developing the full process and equipment for licensed installation contractors
2. Evaluating alternative raw lining material suppliers and improving manufacturing capabilities
3. Expanding the business to adapt and meet the demand of global licensed contractors conducting commercial installations

❖ System/process development

Some background information to the development task. The equipment and process is unique to Aqualiner and many issues arising within the equipment, sub components or materials used are similarly exclusive to their use in our process. Often the properties of the bought in components we need to know and understand are unavailable. We have consulted with external experts, manufacturers of sub-components et al and they have been unable to furnish us with the detailed information and specifications that we require for our design process. However, we have internal experience and knowledge that is allowing us to develop the process and equipment. We may not have the full team on board yet but that does not mean that we are not making significant progress. We are just moving at a slower pace than we would like but that is now changing.

When developing any new and unique process there is the rich opportunity of generating IP/patent, however, the downside of this is that work is often being done for the first time and therefore existing knowledge is not available.

The development team is making solid progress while providing new intellectual property. We have encountered some significant "breakthroughs", with novel IP, in many different areas both specific and non-specific to Aqualiner. Some of the latter have potential value for use in other commercial applications. We continue to review the fundamental building blocks of the process and equipment. We are finding the pros and cons - especially where they don't fit with the commercial requirement.

We have made development progress in key areas such as the heaters, lining material, umbilical, process control system, inversion drum and air compressor. We have established specialist testing capability for lining materials, electronics and our equipment. The development team has continued to work on the design evolution of the system (pig, controller, etc) and is focused on many different areas of the “heated pig”. This includes a new heater design that satisfies the commercial operating requirement of the equipment when used onsite by utility contractors. A couple of the key features for a utility contractor is that the process and equipment is commercially reliable for repeated use and easy to control/operate.

The current development work is focused on the overall process and the control of it. Aqualiner’s process is unique and therefore there are few knowns when it comes to developing the total process. Some of the items that need to be monitored and simultaneously controlled include airflow, pressure, temperature, power, speed and humidity.

❖ **Intellectual Property – 100% increase in global granted patents**

We have continued to see global granting of our patents without any challenges which again reinforces the lack of competing technology. As IP is the core value to Aqualiner this is all very positive. There remain many areas to patent around the key aspects of control, material and equipment of the process where IP has been generated and can potentially be patented in the future. The continued expansion/replacement of our IP, as a result of the on-going internal development of the plant and equipment, has been a significant achievement.

During 2023 the Company nearly doubled its granted patent portfolio from 13 international patents in the last shareholder update to a total of 26 grants now. These now includes 3 patent grants in the US which is the Company’s largest potential market in the western world.

The various granted patent claims cover the following key areas:

- The invention is being incorporated into the heating device which is a core part of the Company’s process.
- The high ratio expansion of the compressed air entering the heating device’s canister in a very short distance. This achieves as near as possible even flow of air across all of the electrical heating elements.
- The design necessary to achieve even air flow and temperature as it exits the heated pig.

❖ Current global granted patents

Official No	Country	Expiry Date	Official No	Country	Expiry Date
2017335237	Australia	27-Sep-2037	3755934	Belgium	19-Feb-2039
3519723	Belgium	27-Sep-2037	3755934	Switzerland	19-Feb-2039
3519723	Switzerland	27-Sep-2037	602019023139.3	Germany	19-Feb-2039
602017031006.9	Germany	27-Sep-2037	3755934	Spain	19-Feb-2039
3519723	Spain	27-Sep-2037	3755934	France	19-Feb-2039
3519723	France	27-Sep-2037	2571127	United Kingdom	19-Feb-2038
2554431	United Kingdom	27-Sep-2036	3755934	United Kingdom	19-Feb-2039
3519723	United Kingdom	27-Sep-2037	3755934	Ireland	19-Feb-2039
3519723	Ireland	27-Sep-2037	502023000003498	Italy	19-Feb-2039
502021000023243	Italy	27-Sep-2037	7208249	Japan	19-Feb-2039
6868701	Japan	27-Sep-2037	3755934	Netherlands	19-Feb-2039
3519723	Netherlands	27-Sep-2037	11305492	United States of America	19-Feb-2039
11280439	United States of America	06-Dec-2038	11613083	United States of America	19-Feb-2039

❖ Discussions continue with global utility contractors and water companies concerning the commercial deployment

With the constant publicity surrounding global water companies' leakage issues we are receiving considerable interest in Aqualiner from both global utility contractors and water companies who want to see the product installed on their network. We have regular update calls with UK water companies as they are planning to include Aqualiner in their capital expenditure during 2025-2030. Water companies are keen to support the development process and offer help where possible. The key value is around the ease of installation of the process in the field.

Our discussions also continue with interested potential partners/licensees in Europe, Japan, Australia, Americas, and South Africa. Some have expressed interest in partnering in the development when moving towards the deployment phase including expressions of interest in funding the international development work and other strategic relationships with the Company.

We are currently advising the water companies and utility contractors that we should have commercial installation capability in early 2025 to coincide with the start of the next UK Ofwat AMP (8) period capital expenditure plans. This is based upon the full development team being in place by early 2024. Further expanding our development team should speed up the timeline. The Company believes that in the 3rd year from our commercial product launch, the Company could reach an annual install rate of in excess 1,000km which represents 0.02% of the European and US network. Achieving this could result in a pre-tax profit of approximately £11m which currently equates to approximately £0.35 per share in earnings.

❖ **UK water companies announce proposals for largest ever investment**

- £96 billion set to be invested in water and sewage infrastructure between 2025 and 2030 – a near-doubling of current levels.
- This unprecedented investment is equivalent to more than 40% of total investment in the rest of Europe.
- UK Water companies in England and Wales have submitted ambitious plans to the UK economic regulator Ofwat, proposing the largest ever investment in the sector.

In total, water companies plan to invest £96 billion over the period of 2025-30, a 90% increase on the current period (2020-25). This investment is essential to maintain the highest quality drinking water for a growing population, ensure the security of our water supply in the future and significantly reduce the amount of sewage entering rivers and seas. A key objective is to cut leakage by over a quarter by 2030 compared with the start of the decade – which will increase the UK’s performance to among the top five countries in Europe. We are either directly or indirectly included in these plans especially through our key water company relationships. For example, Severn Trent Water plans to incorporate the process in their AMP 8 (5 year) commercial plans starting April 2025 - major capex commitment to enhance its infrastructure. Severn Trent announced plans to invest £12.9 billion under the programme. The proposed investments are part of regulator Ofwat's price review programme, where the UK water utilities set out their plans for the next five-year regulatory period to drive up performance and keep in line with environmental guidelines. These plans are subject to approval, and the England and Wales regulator will provide its final decision on the proposals in December 2024.

❖ **Aqualiner continues to extend its market reach outside of the western world!**

Dec Downey (Chairman) again took the opportunity to deliver an update to delegates at Trenchless Asia held in Kuala Lumpur Convention Centre, Malaysia in May. Trenchless Asia is a leading conference and exhibition focused on trenchless technology in the Asia-Pacific region attended by engineers, contractors, manufacturers, suppliers, academics and government officials. Dec also took part in an International No Dig Forum hosted by the China Taipei Society for Trenchless Technology speaking on water mains rehabilitation to an audience principally drawn from the Taiwan Water Company and CECI Engineering Consultants who are active throughout Asia

Dec will be giving a presentation at the 39th International No Dig Conference in Mexico City on 17-18 October. The presentation ‘Water Supply Pipelines – there’s no quick fix!’ will discuss the global challenge in the context of UK, European and North America needs and the progress with current technologies on offer. Dec will also be chairing a panel discussion on CIPP providing engineers and academics with the chance to question 6-7 experts in the field.

Pipe rehab in Central America is taking off, the Latin American Society for Trenchless Tech was launched earlier this year and it and the Brazilian Society held large meetings earlier in 2023. Mexico’s infrastructure market is characterised by a strong domestic component along with a robust involvement of foreign firms. The government announced the first phase of an ambitious infrastructure plan for 2020 – 2024, which encompasses around US\$44 billion in spending. Explosive new growth in Mexico’s infrastructure is making the country even more attractive for companies seeking success. Over the past decade Mexico’s manufacturing sector has grown exponentially. This investment in Mexican infrastructure comes mainly from the private sector, with works projects that will include highways, railways, ports and airports as well as investments in telecommunications and water.

❖ Financials

The Company has in excess of £1.4 million in cash – including £130k received in September from HMRC for our claim for a R&D tax credit refund. Currently the Company’s average cash burn rate is £70k per month. We have taken the opportunity to place funds on bank treasury accounts, to benefit from the increase in interest rates, generating over £50k in 2023.

In September Aqualiner was “onboarded” by Innovate UK EDGE which is a key part of the UK innovation agency’s deep investment in the pioneering businesses that drive economic growth. It is a publicly-funded service available to all high potential small to medium sized innovation-driven companies. They help to identify the most effective strategy to accelerate a business’ growth and maximise its potential. They also aim to give access to the resources to deliver, from IP expertise to investor networks and international partnerships. We are looking forward to working with them over the coming months.

❖ LinkedIn & Updated Website

Our Company's focus on clear communication remains steadfast, evident in our weekly LinkedIn infographic posts elucidating the Aqualiner process. Your engagement, through follows, likes, and shares, significantly contributes to our outreach efforts. A recent website upgrade facilitates a more streamlined user journey, providing succinct insights into the advantages of Aqualiner. This enhancement also emphasises our ongoing recruitment initiatives, showcasing the career opportunities available within our organisation.

❖ Development Centre and Team

In February we renewed our lease for the Loughborough development centre for a further 5-years. In June we recruited a Senior Electronics Engineer with over 40 years relevant experience who has made a timely contribution to the development program. We have also just taken on a Workshop Technician. There is a balance between making daily progress and expanding the team. We cannot allow new weak team member to reduce or stall our progress. As a result, we are seeking a high level of valid skills and experience in our key hires.

We have now engaged with 18 recruitment companies “most like estate agents”. Currently we have 6 recruitment firms actively searching. In addition, we have been actively posting on positions on LinkedIn & Indeed. To date the latter have generated many “no fit” CVS.

Some short-term hires we are targeting are:

1. Engineering Design Lead – Workshop/Solidworks
2. CAD – Design Manager
3. Mechanical Engineer
4. Technical Ass
5. Electronics Engineer

Our main recruitment firm is Concillium Recruit who provide standard recruitment alongside headhunting. In light of the recruitment challenges we have been experiencing we asked if they could provide some background on the engineering recruitment market relevant to Aqualiner. James Colley, a Consilium Director, provided the following comments:

The marketplace for recruitment and attraction has been challenging in the previous 24 months. Businesses that received unexpected growth and spikes in their order books were forced to fight hard to retain people, often achieving this through ultimately unsustainable packages

Candidates often swamped with choice. A key challenge for engineering and R&D businesses particularly within the SME arena, during this period, was the capability and skills gap, alongside candidate expectations being artificially driven upward. Put simply, there were not enough engineers with the right blend of solid engineering principles and hands-on experience in the right setting, in the marketplace. This created an increase in the usage of traditional headhunting approaches, even for roles at Technician level. Job application boards were receiving lower and increasingly less relevant traffic.

The public passion for 'Great British Manufacturing' remains strong but there have been significant examples of businesses being tested by employee demands for flexibility that sat at loggerheads with the practical needs of the business. This inflexibility impacted most acutely on the SME space where the ethos is, quite sensibly, "all hands to the pump". To summarise, the shortage of engineers was linked to candidate expectations being highly challenging for businesses to meet, a shortage of talent per se due to demand and often a lack of agility in the skill base of engineers due to working in very formulaic environments where a predefined process is followed, rather than created and developed to address the engineering challenges.

Looking ahead to remainder of 2023 & 2024, the marketplace is healthier and the likelihood of attracting agile and pragmatic candidates has improved. This is partly due to the reality check of a high number of businesses not performing as they had hoped and their increased operational costs affecting back-end margins. The relative ineffectiveness of having entirely remote workforces became apparent and pertinently, there has been a levelling off and injection of common sense regarding expected remuneration.

The current marketplace is more balanced, whilst there is undoubtedly a shortage of engineers in the market and a level of demand currently, it has moved from a candidate-led market to a balanced market, where sensible candidates take roles with sensible employers. The pinch points now are only being felt in the extremities of the market, rather than across the board. The number of openly active candidates in engineering has increased also in recent months, creating a balanced set of options for the recruiter including both traditional headhunting and modern methods of candidate attraction such as advertisement and social media campaigns to attract talent.

Archie Adams - Managing Director

Mobile: +44 7768 774311

Email: a.adams@aqualiner.co.uk

