

CLARECASTLE SITE DECOMMISSIONING

Project Update No. 7 / Summer 2024

Welcome

to the seventh edition of '*Project Update*'.

With the summer now upon us, I am happy to report that since the last newsletter (Winter 2023) was published we have successfully completed the first area that was identified for remediation (AEC1). All contaminated soil was excavated and shipped to the thermal treatment facility in Holland and this has now been processed. The treated soil is being recycled for building roads and other approved applications in Holland.

The key outcome from this phase is that the project team has successfully shown that enclosures can be constructed, waste removed and transported to Holland for treatment, and the enclosures then deconstructed without having any negative impact on the community or the environment. We are now well advanced with the preparative works for the remediation of the landfill area, which will be the most challenging element of the project. A significant amount of engineering works is currently underway. This includes building temporary roads and installing piles to enable the erection of enclosures, similar to that seen last year when the remediation of AEC1 was carried out. Enclosures are critical for the excavation of the waste from this area.

In addition to the remediation activities, work has started on the groundwater purification phase of the project. This activity will continue for the next eighteen months. It will be completed once the monitoring data gathered confirms that the necessary improvement in groundwater quality has been achieved. The website established for this project (www.rocheclarecastle.ie) has been updated to provide more up-to-date information on the project and to enable visitors to the website to review the evolution of the project since work commenced in April 2020.

We continue to be focused on doing everything possible to ensure that, once the decommissioning project has been completed, new investors will be attracted who will provide employment and a sustainable future for the site.

Joe Murphy Project Owner









An ever-changing site:

- 1. December 2023 the enclosure at AEC1 being deconstructed following the completion of remediation.
- 2. April 2024 empty waste containers in the container laydown area pending the commencement of landfill excavation.
- 3. May 2024 sheet piles being stored on-site for use in the construction of the landfill enclosures.



Remediation of AEC1 - A sustainable recycling process

The remediation of AEC1 was completed in an environmentally sustainable manner. The excavation of contaminated soil was undertaken in a specially constructed airtight enclosure, to guarantee containment of dust, odour and vapour emissions. The excavated soil was placed in containers and sealed prior to exiting the enclosure. The containers were then placed in the on-site container holding area prior to being dispatched to Shannon Foynes Port. 674 containers, containing 17.8 tonnes of waste material, were transported to Foynes for shipment to a specialist thermal treatment facility in Holland.

Photos show:

- 1. A HGV and container being weighed prior to leaving the site.
- 2. The first waste-carrying HGV leaving the site for Shannon Foynes Port.
- 3. Containers being loaded at Shannon Foynes Port.
- 4. A container arriving at the thermal treatment facility in Holland.
- 5. The thermal treatment plant in Eemshaven, Holland.
- 6. The thermally treated waste from AEC1.













Remediating the Landfill - A fundamental part of the Site Decommissioning Project

The remediation of the landfill, which covers an area of approximately 24,000 sq. metres, is a fundamental part of Roche's pledge to restore the site to a brownfield state, and ensure it can have a sustainable future.

All the major activities associated with the remediation of this area will be carried out in enclosures.

The initial step associated with the landfill involves installing roads and piles (foundations) for the enclosures. The piling activities will result in some noise; however, the level will be below the permitted limits. Piling will take approximately nine months to complete.



Contract signing heralds commencement of site works for landfill remediation



The remediation of the landfill is governed by a contract between Roche and the main contractor, Indaver. Pierre Simon, Head of PT Manufacturing, Roche Basel, and Chairman of Roche Ireland (front right) pictured at the contract signing with Paul de Brunker, CEO, Indaver , and (back l-r): Seamus Flynn, Managing Director, Indaver, Ireland; Bart Goethals, General Manager, Indaver IWS; and Isabel Boissonnas, Global Legal Counsel and Company Director, Roche Ireland.

A complex and multi-faceted engineering process

Delivering a project of this size and scope requires a multidisciplinary approach that integrates engineering, environmental science, project management, regulatory compliance and effective communication to ensure that the project is successfully delivered while minimising risks to the environment and to on-site health and safety.



Joe Murphy, Project Owner, Roche (centre) pictured with the teams from Roche, Indaver (main contractor), sub-contractors Niaron, Kirby Group Engineering, facilities management company, Veolia, and environmental management consultants, Verde, at a recent project meeting.

Leading the Roche and Indaver teams

Justin Sammon – Roche Contract Manager

Vastly experienced in leading civil engineering projects, Justin Sammon welcomed the opportunity to return to his native Co. Clare to lead the team selected by Roche to deliver the remediation phase of the overall site decommissioning. Since arriving on-site in 2019, he has played a key role in taking the project through the tender selection of the main contractor, Indaver, to preparing the planning application to Clare County Council and planning the execution



of the project on the ground. He gives an insight into what leading a project of this complexity involves.

"It requires high-level planning at the outset, followed by further refinements pre works' execution and then a rolling wave of detailed daily, weekly and monthly plans once the project gets underway. Assessing the feasibility of the works' design, provided by the contractor, is critical as you have to be assured that the works will meet all the requirements at the time of execution and, in this instance, will be delivered to Roche's standards."

Working alongside a team with expertise in document control, project design, construction, instrumentation, electrical, health and safety, and environmental oversight, and with the first phase of remediation, AEC1, successfully completed, Justin is now focused on ensuring that the remediation of the landfill is equally successful.

He lists the challenges of working on civil engineering projects as communication, delivering to deadlines, and most importantly, meeting the standards set by the client.

Having worked on a number of challenging projects – a London underground rail system, the London Olympics, Dublin Airport T2, Dublin Port Tunnel and Luas bridges - the oversight of this remediation project is in safe hands.

"This is such an interesting project," says Justin. "Rather than building something tangible, as is generally the case in civil engineering, we are enabling the next step for the Clarecastle site."

John Geoghegan, Project Manager, Indaver

A chartered civil engineer and a fellow of Engineers Ireland, Galway native John Geoghegan has been in construction for the past 34 years, delivering projects in both the UK and Ireland. He has worked both for contractor and client organisations, experiences which help him greatly in his current role as Project Manager for Indaver in this Roche Clarecastle project.



John is leading Indaver's on-site team of 34 which comprises managerial roles, engineers and technical staff.

Key managerial roles include health and safety, quality, environmental, design, planning and commercial, while a construction superintendent is responsible for ensuring that the work is delivered on the ground. Indaver also has a specialist technical department which advises on the waste and its management.

Zoning in on the essentials of a project of this nature, John says that the secret is good communication of the plan so that everyone is on the same page to deliver the project. "Effective communications with our client, Roche, is critical to align with their requirements and behaviours," he says.

Focusing in on community, he is keen to point out that the team start and finish their day with the community, by entering the village with care and observing the project speed limit of 20 kph on the Clarehill approach road to the Roche site.

"The project is subject to regulatory consents and conditions, which are there to ensure that the environment and community are protected. We are rigid in ensuring that they are adhered to," he adds.

John's checklist for success will be that the Indaver team will have delivered a high-quality project safely, without impact on the community, to budget, and on time, meeting the requirements of Roche and Indaver.

Continuous environmental monitoring

Verde, the on-site environmental management team, regularly monitors on and off-site environmental conditions, based on the Industrial Emissions Licence (IEL), issued by the Environmental Protection Agency (EPA), and planning conditions, issued by Clare County Council. In addition, an audit of the site's environmental management system, governed by the ISO14001 standard, was undertaken in Q1 2024 with a successful outcome.

Environmental Monitoring Results Q1, 2024

Governing Body	Environmental Aspect Monitored	Result - Quarter 1, 2024
Clare County Council	Dust Levels	100% Compliant
Clare County Council	Nitrogen Oxide (NOx) Levels	100% Compliant
Clare County Council	Noise Levels	100% Compliant
EPA	Storm Water Discharges	100% Compliant
EPA	Waste Water Treatment	99.9% Compliant*

*The IEL requires reporting when any parameter is below the compliance limit. One item was reported to the EPA in Q1 2024 - the phosphorous discharge was 2.88ppm versus the 2.0ppm limit. The root cause of the issue was examined and corrective actions put in place. This slight deviation had no environmental impact.

Traffic metrics: May – July 2024

Three-month Traffic Plan





As with the first remediation phase (AEC1), a robust traffic management plan is in place to control traffic movements to and from the site to ensure minimal disruption to the Clarecastle community during the landfill remediation phase. Monthly traffic metrics are published on our website https://rocheclarecastle.

ie/remediation-phase/ traffic-management/.

Engaging with the Clarecastle Community





Marking Roche's investment in Clarecastle Community and Recreation Park

Roche was delighted to be a contributor to the creation of the Clarecastle Community & Recreation Park through part-funding the development of the all-weather pitch at the site adjacent to Clarecastle GAA grounds. During a visit to Clarecastle earlier this year, Pierre Simon, Head of PT Manufacturing, Roche Basel, and Chairman of Roche Ireland, and Isabel Boissonnas, Global Legal Counsel and Company Director, Roche Ireland (both pictured centre), visited the pitch to unveil a plaque to mark Roche's contribution to this very impressive community facility. They were joined by (from left): Joe Murphy, Roche Clarecastle; Tadgh Collins and Niall Tuohy, Clarecastle Community Amenity Company.

Connecting with the younger generation

Community outreach is important to Roche. We want everyone in the community to understand why we are undertaking this project, the progress we are making, and the outcome of the project, when complete. We were delighted therefore to share our story with 6th class pupils of Clarecastle National School as the site's future could be their future. We extend our thanks to School Principal, MJ Malone, and his team, for facilitating this visit. A return visit is planned and we look forward to welcoming the students on-site.

We welcome requests to present to community or representative groups. If you are involved with a group that would like to know more about the project, please contact us via the contact details below.

Contact Details

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