Waste management for a better world

Geocycle UK



For a zero-waste future





Our motivation, your advantage

Waste poses a major challenge to society that has no easy solution. But it is a challenge that can be solved with innovative thinking.

You care about the health of our planet. We share this commitment and believe in working with you to solve waste challenges in a responsible way. Together we can contribute to bringing about a zero-waste future and a better world.

The global waste challenge

"Improving solid waste management," a World Bank representative said, "is becoming a more and more urgent issue."* Economic and population growth, along with rising urbanisation and increasing consumer purchasing power, is creating ever-greater amounts of refuse. Disposing of it safely and responsibly is a global challenge. Emerging countries often lack the infrastructure to do so, and a large amount of waste is landfilled or often just dumped.

In developed nations, landfilling and incineration are likewise no longer considered viable, long-term solutions. Both have distinct drawbacks and consume rather than conserve valuable resources. In response, multinational companies are increasingly adopting zero-landfill policies.

With waste volumes on the rise in many parts of the world, waste disposal requires new ways of thinking. It demands smarter, more sustainable and economically feasible answers.

Turning waste to your advantage

Geocycle has grown into a network of companies recognised as a leading provider of industrial and municipal waste management services worldwide. We are motivated to serve both you and society at large. Our success stems from our responsiveness to your business needs as well as the needs of the environment.

We partner with you to minimise and repurpose your waste. We help you convert it from an operational liability to proof of your efforts to act responsibly in all aspects of your business. You and your stakeholders contribute to a zero-waste future that offers a lasting benefit to society and ensures a brighter tomorrow.

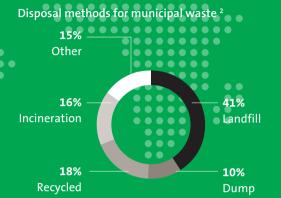
* Rachel Kyte, vice-president of sustainable development at the World Bank, quoted in reference to the World Bank report "What a Waste: A Global Review of Solid Waste Management."

The Geocycle contribution

Total waste problem

3.4 - 4

of municipal and industrial waste generated globally every year ¹



Global waste challenge

Land consumption

Challenge: Landfilling of municipal waste consumes huge amounts of land

 $80 \, \text{km}^2$

Residues

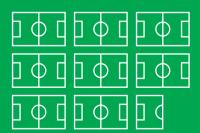
Challenge: Residues from waste incineration

13 million tonnes

Geocycle contribution

By diverting municipal waste from landfills, Geocycle annually preserves land equivalent to the size of

85 football fields



tonnes

Every year Geocycle processes

14 million tonnes of waste materials
worldwide, leaving

no residues

Global waste challenge

Hazardous waste

Challenge: Hazardous waste can leave a long-term legacy for generations to come

million tonnes of hazardous waste are generated every year 1

million tonnes

of hazardous waste are shipped across borders every year 3

Geocycle contribution

million tonnes

of **hazardous waste** are safely and securely treated locally by Geocycle every year, equivalent to

95,000 truck loads

وكب وكب وكب والبي والبي والبي التا لأكث لأكث لأكث لأكث

Valuable resources

Challenge: By landfilling unsorted waste, valuable resources are lost

million tonnes

of recyclable plastics are lost in landfills every year 4

million tonnes

of non-recyclable plastics are lost in landfills every year ⁴

Greenhouse gases

Challenge: Landfilling leads to significant greenhouse gas emissions

of global greenhouse gas emissions are caused by methane emissions from landfills ²



municipalities around the world collaborate with

Geocycle to establish sustainable waste management practices.

Geocycle saves the **energy** equivalent of heating

180,000 households by processing waste from municipal sources

曲曲曲曲曲曲曲曲

Geocycle prevents greenhouse gas emissions equivalent to that produced by

by diverting municipal waste from landfills



 [&]quot;Waste – Investing in energy and resource efficiency", UNEP, 2011
 "What a Waste – A Global Review of Solid Waste Management", World Bank, 2012
 "Illegal traffic under the Basel Convention", Office of Basel Conventation, 2010

⁴ Geocycle estimate based on "What a Waste – A Global Review of Solid Waste Management", World Bank, 2012 ⁵ Geocycle estimate based on "2014 Energy and Economic Value of Municipal Solid Waste", Themelis/Mussche, Colombia University, 2014

⁶ Geocycle estimate based on "Waste Management", Bogner et al, Cambridge University Press, 2007

Capabilities and commitment for your peace of mind

Treating waste is outside the core competence of most companies and municipalities. It can be time-consuming and costly, and expose your firm to major environmental and reputational risks. We apply the highest safety and environmental standards in everything we do. Partnering with us lets you focus on what's most important to you: your business.

Teaming up to solve your waste challenges

We have the assets, capabilities and expertise to handle your waste in a safe and sustainable way. Our highly trained employees go the extra mile to deliver the tailored solutions you need.

Minimising risk by maximising safety

A dedication to safety and environmental protection is built into our corporate DNA. As part of our internal safety and risk management program, ACert, we continuously train our people, systematically assess risks and raise the bar on our performance.



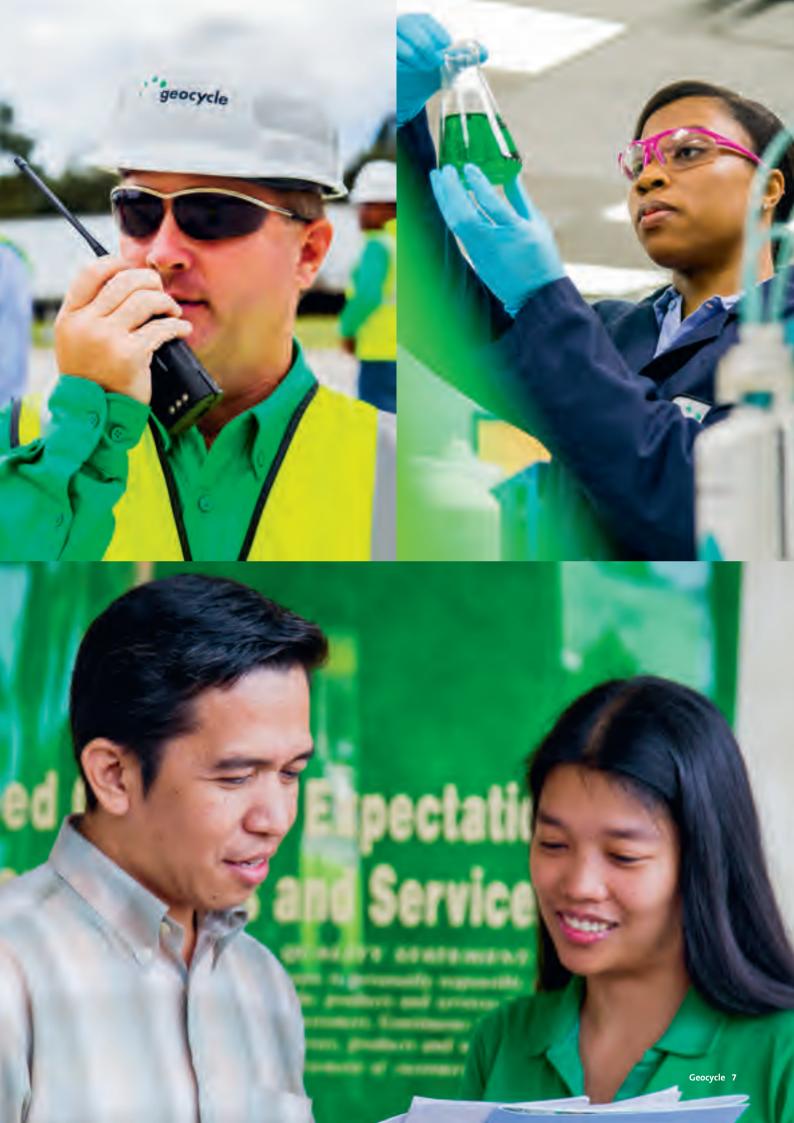
Geocycle provides a wide range of waste management services that include advice, assessment, analysis, transportation, pre-treatment and final treatment

Our responsive approach is based on partnership. We work with you to identify how we can add the most value to your enterprise. From assessment through transport to final treatment, we devote considerable resources and apply the highest standards to handling your waste.

As a specialist waste manager, we solve problems to which co-processing provides the best answer and delivers the clearest benefits to you. Ours is a unique technology that enables us to treat many types of waste, some of which other technologies cannot responsibly handle.

As an established multinational company, we place a high value on integrity. You can entrust your waste to us knowing that we strictly and uniformly abide by all applicable regulations, even as they change in our fast-moving world. This is evidenced by regular internal and external audits, and our strong track record.

We not only feature state-of-the-art processes and facilities. We have committed experts who deliver on the promises they make. This allows us to ensure complete traceability of waste materials entrusted to us. Teaming with us gives you the confidence to work with the waste management partner that shields your business from unwanted risks and gives you the peace of mind that you desire.



Co-processing, a safer, more responsible solution

Co-processing is the sustainable form of waste treatment we specialise in. We apply proven technologies and utilise existing facilities in the cement industry to solve waste problems responsibly and ecologically. This benefits not just you but the entire environment.

A matter of principle

In treating waste, we follow the principles of the waste management hierarchy outlined in the EU Waste Framework Directive and the Basel Convention, a United Nations treaty stipulating sound management of hazardous waste. They describe how to avoid generating waste in the first place and how to dispose of what is produced in the most effective way possible.

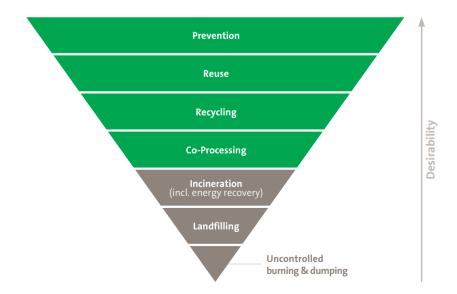
Co-processing, when coupled with expert preprocessing and carried out in the internationally certified manner we employ at our facilities, provides a practical, cost-effective and environmentally preferred option to landfills and incineration. These advantages are widely recognised and led to the publication of specific guidelines for co-processing under the Basel Convention.

Pre-processing, the vital preparatory step

Preparing waste for safe and responsible final treatment through co-processing requires considerable expertise and investment. We have the installations, people and know-how to do so, whether through shredding, separating, homogenising or drying of waste materials.

We test incoming shipments of waste for their chemical and physical properties to ensure that the materials can be safely and reliably processed. Our labs are equipped with the most advanced instrumentation to control all relevant parameters. Rigorous employee training ensures that our safety control and quality remain optimal.

Waste management hierarchy



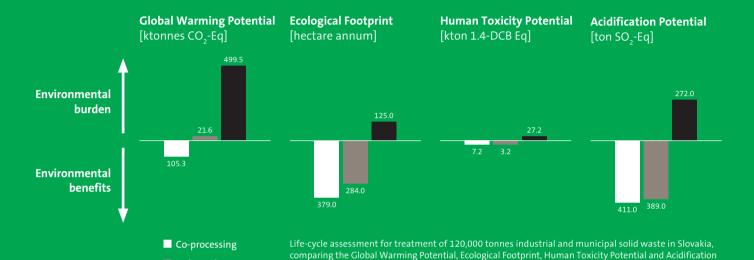
Advantages of co-processing

Incineration

Landfilling

Life-cycle assessment studies demonstrate that co-processing offers superior environmental performance to landfilling or incineration because it:

- Completely destroys waste materials through high temperatures, oxygen excess and long residence time
- Avoids formation of dioxins and furans due to the specific temperature profile
- Leaves no residue that needs to be landfilled as residue reacts with other components to form the manufactured final product
- Reduces greenhouse gas emissions as waste is used to replace fossil fuels
- Preserves non-renewable fossil fuels and natural resources as the energy and mineral value of the waste materials are recovered



Source: Ecorec Eastern Europe, 2012

Potential of co-processing, incineration and disposal in a sanitary landfill.



The customers we serve

Worldwide, we service over 10,000 customers in over 50 countries. Our primary clients are industrial and service companies, municipalities, and waste management firms. We offer dedicated solutions for specific industries and work with customers to ensure they receive the tailored solution they need.



Industrial and service companies

Industrial companies generate large amounts and multiple types of waste as a result of their production processes. By treating and repurposing it, we help them meet their social commitments and achieve sustainable growth targets. Whatever the industry – automotive, steel, electronics, consumer goods, textiles, food production – we are skilled at shielding them from the risks of long-term liabilities. We advise them on safe, efficient ways of converting waste into a competitive advantage for them.



Municipalities

Many municipalities face rising volumes of waste at the same time that they confront tighter budgets and increased expectations from stakeholders and regulators. We offer them innovative solutions that eliminate the need for large investments in incinerators or new landfills. We provide advice about sorting out valuable recyclables for resale. We co-process the non-recyclables to reduce the amount of waste that winds up in landfills. We help our partners find a more ecologically and economically sustainable approach that contributes to a cleaner living environment for the communities they serve.



Waste management companies

Waste management companies require extensive capacity, flexibility and expertise in their waste management partners. Whether dealing with the non-recyclable components of municipal refuse or different types of industrial waste, we create value for them and their customers by ensuring that difficult waste is treated in a safe, compliant, responsible manner.



Agricultural companies

We work with the agricultural sector in numerous ways. From processing the problematic residues of large-scale agro industries to supporting smallholder farmers to improve yields, our biomass activities are designed to add value to our partners and local communities by strengthening agricultural production chains. Biomass production, we firmly believe, should not compete with food production. We provide services to agricultural producers and processors that enable them to increase their output while operating more economically. Our work with local farming communities prioritises developing and maintaining long-term partnerships that will increase farmer revenues and secure their livelihoods in a sustainable way.



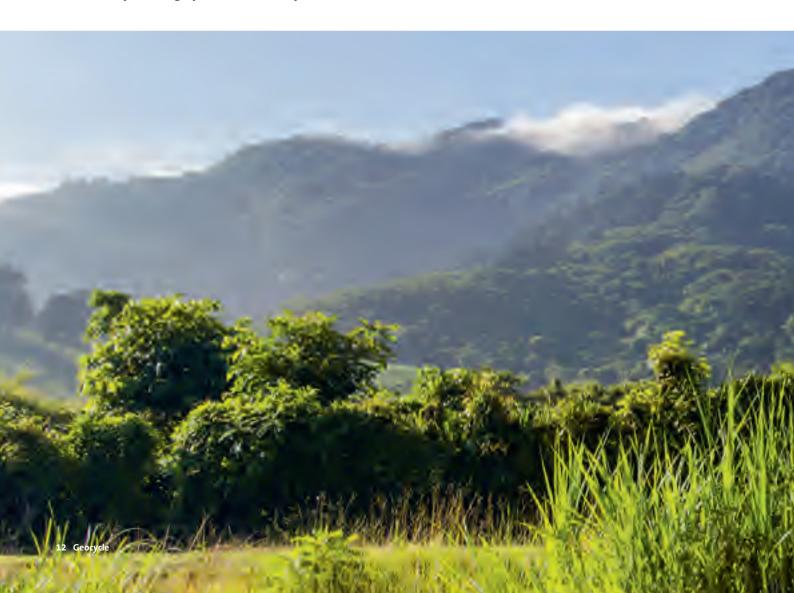
Making a mark by leaving no trace

We all share an obligation to protect the environment. Corporations and municipalities in particular are expected to act on it. By partnering with a recognised leader in waste management, you live up to and demonstrate your commitment.

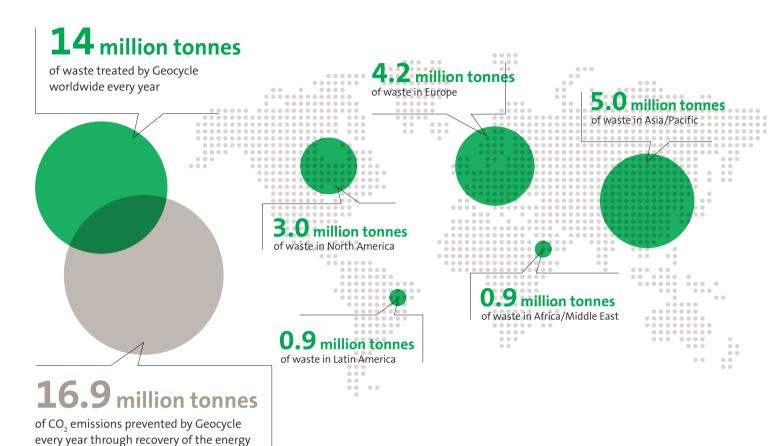
You minimise your risk exposure and avoid costly infrastructure investments and potential financial liabilities. You align yourself with a progressive vision to reduce waste, repurpose it and treat it ecologically. You participate with us in a circular economy that closes resource cycles wherever possible, and contributes to a zero-waste future and a cleaner planet.

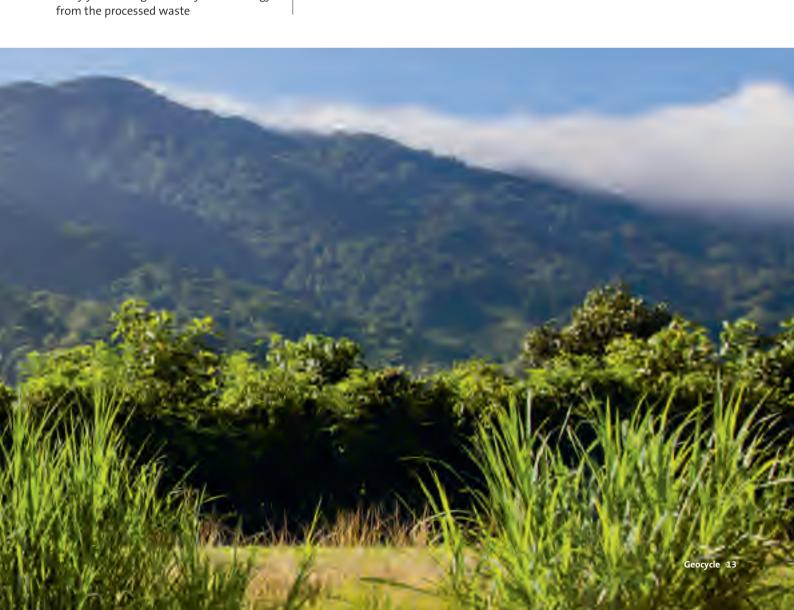
The global trend of adopting sustainable business practices is accelerating. It pays to keep ahead of the curve. Reputations built over decades can be lost in days. Brands can suffer overnight. We help you preserve and enhance yours, tangibly and cost-effectively.

We understand sustainability because we actively live it. Day in and day out, we work with our customers to solve their most pressing waste problems and contribute socially, economically and ecologically to the betterment of the world. Teaming with us on behalf of your stakeholders and society at large enables you to focus on what you do best. It also helps you bring your company values to life and, not least, make a global difference.



For a cleaner environment





For a better society







Romania

150 enthusiastic employees, family members and friends of our Romanian subsidiary collected more than 1,250 bags of waste from natural areas around our facilities as part of the "Let's do it, Romania" campaign.







Indonesia

Geocycle collaborated with the Indonesian government to develop a comic book to create awareness for environmental protection and responsible waste practices. A total of 5,000 copies of it were distributed to communities, reaching over 11,000 children.







Costa Rica

Geocycle works with health authorities to prevent the spread of dengue fever. It is part of a program aimed at collecting and responsibly treating used tires to eliminate a potential breeding ground for dengue mosquitos.







Colombia

Geocycle collaborates with several groups of small farmers and NGOs to collect and responsibly treat empty pesticide plastic containers, thereby helping rural communities avoid the health and environmental problems associated with them.



Thailand

Geocycle cooperated with local authorities to rehabilitate 10 landfill sites in order to return the land to local communities, improving lives in more than 30 municipalities.



Adding value to customers







Colombia

Geocycle offers a crucial environmental solution to oil spillages caused by guerilla attacks on oil piping systems. Following clean-up and remediation done in partnership with other companies, Geocycle treats all contaminated soil, debris and clean-up wastes.







Belgium

Geocycle helped a customer engaged in drum recycling develop an innovative container solution to collect and transport waste sludge. The new solution prevents spillage, reducing risks to the environment and eliminating the need for laborious clean-up activities.



US

Geocycle works with major agricultural seed producers to co-process excess, outdated treated cottonseed inventory. This action reduces the producers' liability for inventory quality control issues and diverts treated seed from being landfilled.







Sri Lanka

Geocycle has become a leader in providing environmentally friendly solutions for pharmaceutical waste in Sri Lanka. For example, Geocycle collaborated with the Ministry of Health to securely treat such waste. It also supported the Cosmetics Devices & Drugs Authority in developing a sound regulatory framework for pharmaceuticalrelated waste disposal.







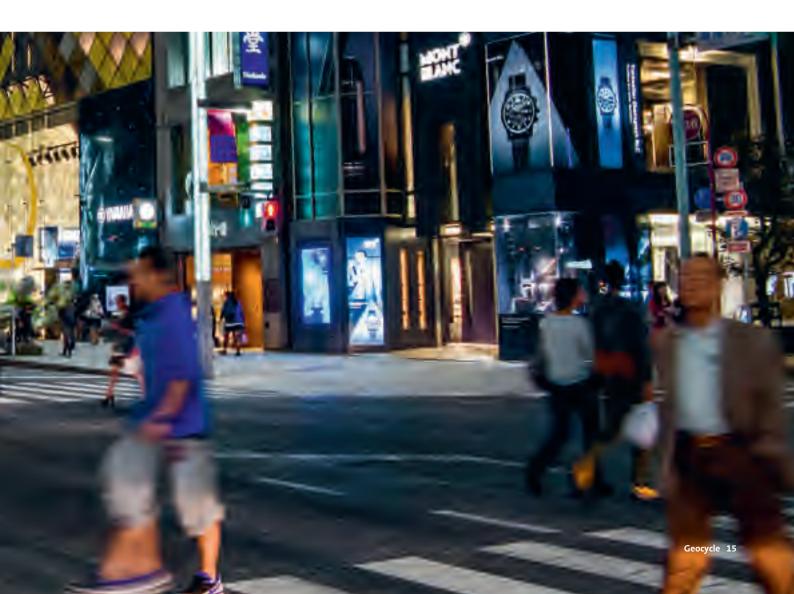
The Chilean sanitary authority relies on Geocycle to handle and destroy all food, plants and other organic materials that tourists attempt to bring into the country. For a country dependent on agriculture, invasive species must be kept out to preserve biodiversity.







Geocycle offers a footwear producer an environmentally friendly waste solution, coupled with a just-in-time logistics service that helps to ensure business continuity. The customer says: "Without Geocycle, we would have had to stop our operations because in three days our facility would be filled with waste."



Who you are partnering with

Geocycle is an international network of over 50 companies, located on five continents, that is a leading provider of waste management services worldwide. Born from the pioneering activities of our parent LafargeHolcim in the area of co-processing in the 1970s and 1980s, we retain an exclusive partnership with the LafargeHolcim Group, the world's largest cement manufacturer. For decades we have developed innovative industrial and municipal waste management services for a wide range of customers.

At a glance

- Global network present in over 50 countries on all continents
- Serving more than 10,000 customers worldwide
- 80 waste pre-treatment facilities
- 180 cement plants with dedicated co-processing installations
- 2,000 employees worldwide dedicated to waste management
- Plants equipped with Environmental Management System (EMS) according to ISO 14001 and a global risk management program (ACert)
- Subject to regular internal and external audits



Your local Geocycle partner

Geocycle UK is a part of the worldwide network of Geocycle waste management companies of the LafargeHolcim group. In the United Kingdom, we have co-processing plants in Cauldon Staffordshire, England and Cookstown in Northern Ireland.

We offer solutions in the following areas



Treatment of solid, non-hazardous waste

• Mixture of commercial and industrial waste

Tyroc

 Used tyres from vehicles shredded to 50mm

Solvents

Other types of waste materials

Fly ash, contaminated soils, etc

We work together with you to find tailored waste management solutions. Please contact us on: (+44)024 7632 1375

Geocycle UK

Our network of locations deliver optimal waste management solutions whether your need is local or national.



Head Office

Plants

Head Office

Geocycle UK

Witherley House Hazell Way, Bermuda Road Nuneaton, Warkwickshire CV10 70G

Tel: (+44) 02476 321 375 Fax: (+44) 02476 321 372 enquiries@geocycle.com

Michael Awanayah Head of Geocycle UK

Mobile: (+44) 07740 933 940 Tel: (+44) 02476 321 373 michael.awanayah@geocycle.com

Thijs Ingenhoven **Commercial Manager Geocycle UK**

Mobile: (+31) 0620 113 496 Tel: (+44) 02476 321 374 thijs.ingenhoven@geocycle.com Cookstown, Tyrone BT80 9AP

Steve Lamond AFR Co-ordinator

Mobile: (+44) 07583 017 374 Tel: (+44) 02886 767 300 steve.lamond@lafargeholcim.com

Cauldon Cement Works

Lafarge Cauldon Limited Cauldon Cement Works Yelsway Lane, Waterhouses Staffordshire, ST10 3EQ

Andrew Latham AFR Co-ordinator

Mobile: (+44) 07483 324 220 andrew.latham@lafargeholcim.com



Geocycle UK
Witherley House
Hazell Way
Bermuda Road
Nuneaton
Warkwickshire
CV10 7QG

Phone (+44) 02476 321 375 Fax: (+44) 02476 321 372

www.geocycle.com

© Geocycle UK 2017