

Croft Quarry Case Study

July 2014 - September 2015

Creating the crowning glory at Croft Quarry



RECYCLING WASTES AND
BY PRODUCTS FOR
USE IN AGRICULTURE
AND LAND RESTORATION

Over many decades Croft Quarry has created a visible scar on the landscape of Leicestershire. The 4R team carried out the final stage of the restoration of the land, covering the top of the dome created by quarry spoil and finally completing the transformation of this area.



The land is now suitable for amenity and leisure uses

The project not only restored a disused section of the quarry, but recycled 1,000s of tonnes of organic solids which would otherwise have been tricky to dispose of. Being paid a fee to recycle this material made the restoration cheaper for the landowner - big benefits all round!

The project: Phase 3 restoration of Croft Quarry - capping off

After hundreds of years of quarrying at Croft in Leicestershire, the beginning of the quarry's restoration began more than a decade ago. In 2014 our team imported 1,000's of tonnes of sewage sludge to enrich the top of the spoil heap, eventually making it suitable for cultivating seeding in March 2015.

Members of the 4R team have been involved with phases 1 and 2 of the recent restoration as employees of other organisations and we were proud to be asked to complete the job.

The brief

A steep stack had been created by centuries of quarrying. The land was essentially inert, with no nutrients on which plants could feed. This meant the now disused quarry continued to be a blot on the landscape despite two previous phases of restoration covering other areas of the site.

We were asked by the landowner to:

- Cap off the top of the spoil tip, improving organic matter and nutrient levels
- Ensure compliance with all local authority, Environment Agency and other regulatory authorities
- Seed the site

See over for details 

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How we did it

Our consultancy team worked with the client to agree a plan of importing organic materials to enrich the inert land. Once the plan was approved our team:

- sourced and imported 1,000's of tonnes of sewage sludge per hectare with which to enrich the inert landscape
- stockpiled the sludge at the bottom of the stack (it was too steep for lorries) and used tractors to take it to the top
- spread the sludge on top of the spoil heap, rather than mixing with the existing materials
- managed the odour emitted when spreading the organic material using mobile de-odourising units
- left the sludge to dry out and shrink before returning to cultivate and seed it a few months later

Benefits

The site owners completed the final restoration of their site with little cost because we have relationships with water companies which need to constantly recycle their sewage sludge.

Our innovative use of sewage sludge not suitable for use on other types of land to enrich inert materials means



the site is now suitable for woodland planting or amenity use and is no longer a scar on the Leicestershire landscape.

There are many benefits of choosing 4R Group as your land restoration partner, including:

- Access to our soil and environmental scientists and operations experts
- A unique approach to brownfield restoration
- Tap into our network of contacts at water companies and other businesses who need to recycle their by-products which can be used to enrich sites such as quarries, capped-off landfill sites, colliery and metal mine tips
- Using industrial and domestic by-products in this manner is a great example of how UK businesses are already involved in the 'Circular Economy'



- Creating green space where none existed also creates a new Carbon Capture situation

Results

The restoration of Croft Quarry – started more than a decade ago – is now complete and local people are just as delighted as the landowner.

Within a few months of seeding the land had bloomed with grass covering the once brown and barren landscape. Our before and after pictures illustrate just how dramatic the change is – the benefit to the local community is obvious.

Can we help with your next project?

Our team of soil scientists, environmental scientists and operations experts has been restoring brownfield sites for more than 20 years in the UK and abroad. **Give us a call to see how we can help with your next project.**



4R RECYCLING IS PART OF THE 4R GROUP
INNOVATORS IN WASTE SCIENCE
AND RECYCLING TECHNOLOGIES

Call us on: 0800 0121 769

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