



## Press Release

### **CDE technology helps Collier Materials maximize production.**

Collier Materials has been operating out of its Marble Falls pit since 1973 under the direction of the Collier family. With 46-years' experience producing sand, granite and gravel, the company has recently gone through an expansion, adding locations in Llano and Georgetown Texas.

Kevin Collier believes they have some of the best rock and sand that is being produced in North Austin. The firm supplies sand and aggregate products to customers throughout Texas, building on its original decomposed granite business, it has built a strong reputation for producing high quality landscaping and construction products.

The firm recently upgraded operations at its Georgetown site, and already the investment is reaping rewards. Collier Materials had previously invested in an off-the-shelf cyclone-based wet processing system to process a clay-bound limestone-based raw feed, comprising an excess of 4-8 mesh in the material. A tough material to contend with, the raw sand fraction contained more than 35% passing the #200 sieve which had been causing the operator some problems as they strived to achieve a consistent, quality grade of C-33 spec sand, in high-volume, while also striving to improve site maintenance and operations. The off-the-shelf plant proved unsuccessful and so Collier once again turned to CDE, the sand washing experts, after a previous successful partnership.

With a proven track record at Collier's Llano site, and over 2,000 wet processing installations across the world since 1992, CDE's tried-and-tested innovative sand washing technology was identified as the solution to Collier's ongoing problem. And the CDE USA team, headquartered in Cleburne Texas, were up for the challenge.

Kevin Collier noted, "We needed advice and support with replacing a wet processing line that wasn't working out for us – it was a similar system, but not quite of the same caliber and hadn't been custom designed to cope with our raw feed. The main problems were that the product spec wasn't consistent, and it wasn't producing the grade we needed."

Collier's previous off-the-shelf plant on the Georgetown site was not achieving the required quality and consistency to meet C-33 spec approval and the management and maintenance of its pond was proving inefficient and costly. The system was not removing enough #200 from the sand feed which varied from 17-25% of the feed. It was also losing a significant amount of valuable concrete sand to the settling ponds. CDE was therefore appointed to provide a custom-made washing solution that would guarantee to remove the high amount of #200 and reduce the need for pond maintenance on site.

Thomas Wick, Business Development Manager at CDE's Cleburne base, explained, "We fully appreciated that Kevin and his team needed a full-service partner who could work to understand their plant, feed materials, and specific needs, to co-create the right solution, quickly. Collier Materials had experienced the effectiveness of a CDE plant previously, but for us, no two plants are the same. This time, our engineers went straight to their site to work hand-in-hand with them to design, manufacture, install and commission a custom-built solution."

Collier knew that valuable fractions were being lost to ponds along with the overflow, which in turn meant a significant increase in pond footprint and maintenance. This maintenance was becoming increasingly difficult, with the settling ponds needing cleaned seven days a week – their productivity depended on how quickly this cleaning could be done and much of the site’s real-estate was locked up in these ponds. Recovering lost fines would involve reprocessing the waste material, resulting in significant operational costs through double handling and downtime.

Kevin knew he needed an innovative solution that would deliver results. CDE’s technology guaranteed to maximize productivity through water recovery and retention of sand, therefore improving the quality and quantity of production whilst mitigating issues related to ponds.

Kevin added, “In making the change, it was important that we worked directly with the manufacturer. We knew CDE could deliver our outputs while championing a more sustainable way of achieving that - they’re the wet processing and washing experts promoting a New World of Resource. Sustainability is also important to us; sustainability of our resources and of our business. We use smart washing solutions to optimize our natural resources in a more efficient way. We realize that, amongst other business priorities, there’s a need to go in a more environmentally friendly direction.”

“CDE’s team of local experts took the time to truly understand our site and needs, working with us to deliver a smarter, integrated solution. We knew they were the team we wanted to engage and the process of working together has exceeded both our expectations and their promise, extending right through to after-sales care.”

Thomas Wick explains, “Prior to starting work on the design of the plant, CDE had an initial visit to the Georgetown site to establish the causes of inefficiencies, followed by an analysis of the site’s raw feed at CDE’s laboratories to ensure the mass balance would be developed for maximum plant performance.”

The design and engineering teams were then able to work from a comprehensive brief to develop the most efficient solution for the Georgetown site. This ‘engineered to order’ approach is how CDE prefers to partner with their customers.

Wick says that after a thorough process, “A cyclone-based CDE EvoWash™ 251 wet processing plant was identified as the most efficient system to deal with the Georgetown site’s clay bound limestone material.”

The plant has a production capacity of up to 250tph and is calibrated to produce in spec and consistent ASTM C-33 grade sand, as well as by-product ‘grit’ sand simultaneously, to turn the excess of 4-8 mesh into a sellable product.

The efficiency of the plant is optimized using a waste water treatment unit, a CDE AquaCycle thickener, which allows recycling of up to 90% of the water used via a system that settles the solids from the dirty water in a controlled environment and expels sludge into the nearby settling ponds. This is ideal for businesses that don’t have readily available water supplies. The process water, after passing into the deaeration chamber and having the flocculant added, passes gently to the center of the thickener so that the flocculant can work and act on the sedimentation of the fine material.

With a capacity of 6,600gpm, the AquaCycle allows Collier Materials to bring pond space down to a fraction of its original footprint as 10 times less volumes of waste sludge are sent to ponds in comparison with the previous installation.

CDE recognized that with the correct design of the system, along with the correct amount of water in the system, Colliers plant could increase capacity by more than 50%.

Collier confirms this, “Before, even with cleaning the ponds seven days a week we were still only operating at 50% of what the plant was capable of. Now with the AquaCycle, 100% of my production time and man-hours time is running the plant. What we’re seeing with this technology is so far ahead of everybody else’s.”

The process from order to completion happened quickly with the plant designed, manufactured, pre-wired and pre-tested at CDE’s assembly facilities. After delivery, installation and commissioning by the CDE engineers, the team then trained the Collier Materials staff on site. Once the plant was operational, the CDE CustomCare service took over to offer a world-class customer-for-life service.

Michael Dambra, CustomCare Regional Service Engineer at CDE’s Cleburne office, keeps in touch with the team at Collier almost daily. He explains, “Whether it’s questions about parts, tech advice, checking stock levels or preventative maintenance inspections, we’ve ongoing communication with Kevin and his team. Any adjustments that would need to be made to ensure the optimal product is produced, we’re there. It’s a very close relationship and we’re lucky to work in partnership with them.”

Kevin Collier believes that CDE’s process provides a much-needed sense of assurance than if they had purchased via a dealer, commenting, “We have had a comprehensive and full-circle service with CDE, and they continue to regularly liaise with us post-installation. We’d been hurt before working with middle men, but now we have ongoing direct contact with engineering excellence. It’s also comforting to know the team are readily available should we need assistance.”

Thomas Wick added, “We proactively work with customers to increase ROI and ensure optimization of their plant. Kevin and the team are a customer partner now to CDE, and we hope the positive results seen so far continue from strength to strength.

“Our CustomCare team is right on our customers’ doorstep to provide after-sales service excellence and engineering support for complete peace of mind – we have a dedicated point of contact for every customer who routinely calls by or makes a phone call to check in. All our customers in North America also benefit from the fact we have readily available stock of common parts in Cleburne, Texas, and a complete order history to assure shorter downtime, low shipping costs and boosts in productivity as a result.”

Productivity has already been boosted at the Georgetown site, as Collier shares, “Our new CDE plant provides maximum results for a consistent production and not only are we making spec sand, we’re making a lot more of it. We will more than double our tonnage per year.”

In terms of future plans, Colliers main concern is true to his company values – to continue serve quality products, and he is confident that with the new CDE technology and their expert team that Collier Materials will achieve that and more.

Watch the story here - <https://youtu.be/8HwqtLN-jY>

**ENDS**

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#### **About CDE**

- CDE is a leading provider of wet processing equipment for quarries, mines and recycling operations on the global market.
- The CDE equipment range has applications across a wide range of materials and is delivering significant efficiencies in the construction and recycling, mining, industrial sands and environmental sectors.
- Working across 5 sectors and 8 regions CDE has been co-creating with customers for over 25 years to deliver collaborative, imaginative and unique processing systems.
- CDE is headquartered in Northern Ireland and has bases in Graz, Austria to serve the EU & Russian markets; Kolkata, India, to serve the Asian market; Belo Horizonte, Brazil to serve the Latin American market; Ormeau, Australia, to serve the Australasian market; Dubai, UAE, to serve the MENA market and North Carolina and Texas, USA, to serve the North American market. CDE also has a team based in sub-Saharan Africa.