

# Walvis Bay Salt Refiners invests in Bell Grader to improve efficiencies



**Something of value is said to be worth its salt. This too may apply to a Bell 2406C Articulated Hauler that in almost 23 000 hours of service, spread over some 16 years, hauled 4 992 000 tonnes of salt for its owners.**

And it won't be necessary to take that with a pinch of salt either as those exact hours are on record at Walvis Bay Salt Refiners in Walvis Bay, Namibia. Situated on a Ramsar-protected wetland site, Walvis Bay Salt Refiners has been producing salt responsibly here for more than half a century and has expanded their site twice, in 2012 and again in 2016. This year the company plans to produce a million tonnes of salt per year.

We spoke to the Maintenance Manager for Walvis Bay Salt Refiners, Jaap Venter, about the company's long relationship with Bell Equipment. "The Bell 2406C Articulated Hauler mentioned was the eighth such machine we've owned over the years and it hauled a set of tandem bottom-dump trailers, which were also built by Bell Equipment. After being in use for 5 840 days, we donated it to the Namibian Institute of Mining and Technology (NIMT) at Arandis for their apprentices to work and study on," he says.

Salt is extracted or mined after seawater had been pumped into large evaporation ponds. Here, over a period of nine months, the water evaporates to form



brine. From there the brine is pumped into smaller ponds of 20 hectares called crystallizers. Wind and sun, which Walvis Bay has in excess, along with some micro-organisms are needed to grow the salt. The brine is also filtered by oysters and around 65 000 lesser and greater pink flamingoes that inhabit the ponds and crystallizers.

Once the salt is ready to be harvested, the crust is broken using equipment similar to a road milling machine. Walvis Bay Salt Refiners has plans to improve efficiencies in this process and Jaap Venter tells us more about this. "We've recently ordered a Bell 872G all-wheel drive Grader, which will break the crust in the crystallizer. The same Grader will also push the loosened salt into windrows, from where our Bell Wheeled Loaders will load the salt into our own and contracted haul vehicles, which are all Bell products."

According to Jaap, speed and efficient methods are of the essence in this process. In order to maintain production levels the floor of the crystallizer needs to be levelled to enable brine to flood the area within five days of the salt been harvested. The thought is that the Bell 872G Grader will be up to the task in a multiple role, breaking the crust with its scarifier, pushing the salt into windrows for easy loading by the Bell L2106D Wheeled Loader and again levelling the floor of the crystallizer, ready for the next batch of brine.

Once loaded, the coarse salt is hauled to the washing plant some 2km away. This is done using two Bell 2306D Articulated Haulers pulling two tandem bottom-dump trailers each. "We've always enjoyed this haulage method for the sheer volume it conveys and should one of the two tandem trailers need to undergo renning repairs, the other can be used to still haul 25 tonnes of salt to the plant," Jaap explains. "We also use a Bell B30E

Articulated Dump Truck (ADT) which we bought in 2013 and has now clocked just over 10 000 hours. The truck is fitted with greedy boards and a tailgate as it carries a good heaped load of coarse salt."

A contractor uses three Bell B25D ADTs in a similar role.

"The cost of diesel is our biggest cost driver and we're happy to say that our Bell machines, with their Mercedes Benz and John Deere motors, are light on fuel," he adds. "We buy our Bell machines with standard warranties of 2 500 hours or 12 months and although we believe that the new Bell 872G Grader will work less than those hours in a year, our other Bell machines all work in excess of 3 000 hours a year."

It must be assumed that working in harsh conditions such as those found in salt production must take their toll on all things metal. Jaap believes that an hour-based replacement policy is to be introduced by his company on essential parts such as radiators, hydraulic pipes, wiring and harnesses. All plugs are taped up as the salt water knows no bounds and various coatings of epoxy paint are applied liberally.

"We were happy to hear that the Bell Equipment branch in Swakopmund now has a test bench, which has smoothed diagnostic problems. We believe availabilities of key parts could be improved but we are satisfied with the prompt attention we receive from Owen Snyman and his friendly team in Swakopmund. Maintaining service levels on our machines help us to keep production costs down and we're firmly of the belief that once our new Bell 872 Grader is in production, those costs will sink even lower," Jaap says.



(From left): Owen Snyman (Bell Equipment Swakopmund Customer Service Centre Team Leader), Jaap Venter (Maintenance Manager: Walvis Bay Salt Refiners) and Jan Anderson (Bell Equipment Sales Representative).

