

# Customer Testimonial



## Almaplex<sup>®</sup> Industrial Lubricant (1275) & Perma<sup>®</sup> Automatic Lubricator

*City of High Point Eastside WWTP – Jamestown, N.C.*

### *Serpentix Sludge Conveyors*

- Kept water and contamination out of bearings
- Increased bearing life
- Made greasing easier, more effective and safer

#### **Customer Profile**

The City of High Point Eastside WWTP processes about 12-15 MGD of wastewater from the City and surrounding area. The plant is permitted for 27 MGD.

#### **Application**

The Serpentix sludge conveyor has a total of 12 pillow block bearings, each needing to be greased. The sludge conveyor consists of three conveyors working together to move the product through the plant to the incinerator. Each conveyor has a head pulley and tail pulley, for a total of four pillow block bearings. These are critical pieces of equipment because the plant does not have sufficient storage space to hold the product if the line goes down.

#### **Challenge**

The sludge conveyor is in a dirty, corrosive and wet environment and operates 18-20 hours per day. In addition to the product that is moved on the belt being dirty and corrosive, the belts and bearings are washed down daily to keep the line clean. The lubricant the plant was using (Mobilux EP 2) was manually applied, did not stay in the bearings and washed out easily. The plant was losing bearings. Each bearing replacement cost more than \$400, not including other parts, labor and downtime. IN addition, manual lubrication of the bearings was not a job the maintenance technicians looked forward to because of the difficult conditions.

#### **LE Solution**

Jeff Boyles, LE lubrication consultant, recommended using LE's Almaplex Industrial Lubricant (1275) applied with a Perma Nova 130cc Lubricator. Almaplex (1275) is a general purpose extreme pressure grease for heavy-duty industrial use. It is



especially effective in severe operations caused by moisture or high temperatures. The lubricant's robust aluminum complex formulation seals out water and contamination and protects against oxidation, rust and corrosion. It also provides exceptional wear protection. Included in the formulation is Almasol, an LE proprietary additive which is a solid film additive that minimizes metal-to-metal contact further reducing heat, friction and wear.

Almaplex 1275 can be applied with a Perma Nova lubricator, the industry's first temperature independent electrochemical lubricator. The Nova is FM Certified (intrinsically safe).



The Perma Nova can be purchased from LE already filled with 130 cc of Almapex 1275. It has a reusable control top that can be programmed to dispense from 1-12 months.

The Nova unit is well suited for this WWTP application. The constant push of grease can keep water and contaminants flushed out and keep a protective seal or lip of grease on the bearing seal. Using the best practice method, the Nova lubricator applies lubricant in a small amount frequently over a specified time. For the City of High Point Eastside WWTP, the units were set at four and six months, depending on the shaft size.

**Results**

The WWTP staff has been thrilled with the results. The Almapex 1275 is staying in the bearings. It resists water and wash-out. The Perma Nova lubricators are constantly keeping a grease seal on the bearing, which is keeping out dirt and moisture (see picture). The plant's staff expects bearing life to be increased with the new system.

Lubrication is now easier, more uniform and consistent. The Nova lubricators reduce the amount of time needed to perform lubrication, plus the workers do not have to be exposed as much to the dirty environment. Steve Yates, maintenance mechanic, emphasized this helps with safety and scheduling. Previously, they performed the greasing at the mercy of operations. Operations would tell them "We will be down today for wash-down." Maintenance would have to stop other tasks to grease the conveyor lines right after the washing crew finished.

**Other LE Products Used**

- LE Monolec® Multiplex Lubricant (4622) applied with Perma® Nova lubricators on blowers
- Oil Safe® containers
- Des-Case® breathers



*Westside conveyor; product comes in from hopper above, notice Perma Nova unit on tail pulley.*



*Westside conveyor on right and incline conveyor (long flat and slanted line)*



*Incline conveyor head pulley (upper), and reversing belt tail pulley (goes to incinerator). Perma Nova units are on each and Des-Case breather is on gearbox*



*Westside conveyor head pulley (difficult access)*



*Incline conveyor tail pulley (difficult access)*



*Incline conveyor head pulley (difficult access)*

*Thank you to Steve Yates, maintenance mechanic; Jerry Capraro, chief mechanic; and to Jeff Boyles, LE lubrication consultant (pictured), for providing the information used in this report.*



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Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

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