

6405 MONOLEC[®] R & O COMPRESSOR / TURBINE OIL

CITY OF ALHAMBRA, CA, Vertical Water Pumps

Vertical Water Pumps • SIC 4941 Water Supply

CUSTOMER TESTIMONIAL

CUSTOMER PROFILE

The City of Alhambra, CA — Water Division operates several vertical water pumps.

APPLICATION

It is Dick Boos' responsibility to keep all of these pumps operating smoothly so that the city is assured of a water supply. The water is pumped from wells using 300 hp General Electric vertical pumps.

AREA OF CONCERN

The City of Alhambra personnel are very interested in reducing their electrical power costs. Other steps they have taken include operating these pumps as much as possible during off-peak hours when their electrical power rate costs are lowest.

LE SOLUTION

In May of 1989, the local LE Lubrication Consultant proposed the benefits of ZAP, LE's Energy Saving program. It was based on the expectations of reduced power consumption that Dick Boos elected to install LE's 6405 Monolec R & O Compressor / Turbine Oil, which contains Monolec, LE's wear-reducing additive.

21 AMP REDUCTION!

A unit was selected on their #13 well. Amperage draw was taken before and after the installation of LE's 6405 Monolec R & O Compressor / Turbine Oil (SAE 40 weight). The previous product was commercial grade 40 weight turbine oil.

CUSTOMER COST SAVINGS

On May 10th a conversion was made. Prior to the conversion the operating oil temperature with the commercial grade product was measured at 100°F (38°C) with an ambient pump house temperature of 72°F (22°C). The amperage measured at this time was 286 amps.

After the conversion to LE's 6405 Monolec R & O Compressor / Turbine Oil, when steady operation had resumed, the oil temperature was measured at 90°F (32°C) with a pump house ambient temperature of 83°F (28°C). The amperage draw was measured at 265 amps...a 21 amp reduction! As evidenced by the calculations, this equates to over \$3,508 per year in electrical power cost savings.

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01-18-01
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DATA

Yearly Service: 365 days per year (4,334 hours total)

Electrical Rate: \$.06/kW hr. during hours of 7 pm - 12 am (5 of 11 hours per day)
 \$.035/kW hr during hours of 12 am - 6 am (6 out of 11 hours a day)

Voltage: 480V x 3 phase

Amperage Draw: 286 amps (before) 265 amps (after)

| | | | | | | | | | | |
|-----------------------|---|------------|---|------|---|------|---|------------------|---|---------|
| (286 amps - 265 amps) | x | 480 volts | x | 1.73 | x | 5 | x | 4,334 hr. | x | \$0.060 |
| amp - volt | x | 1,000 watt | | 11 | | year | | kW hr. | | |
| watt | | kilowatt | | | | | | | | |
| Plus | | | | | | | | = \$3,504 | | |
| | | | | | | | | Per Year | | |
| (286 amps - 265 amps) | x | 480 volts | x | 1.73 | x | 6 | x | 4,334 hr. | x | \$0.035 |
| amp - volt | x | 1,000 watt | | 11 | | year | | kW hr. | | |
| watt | | kilowatt | | | | | | | | |

We wish to thank Dick Boos, Pump Operation Supervisor and LE Lubrication Consultant, Andy Hutt, for the information provided to prepare this report.



Andy Hutt