



PREMIUM PRODUCT AND BASE NUMBER MONITORING LEAD TO VALUABLE SAVINGS AT COZUMEL

TOTAL REPORTED ANNUAL CUSTOMER SAVING
US\$39,000



COMPANY: Energia y Agua Para de Cozumel

COUNTRY: Mexico

APPLICATION: Diesel engine

SAVING: US\$39,000 total annual reported saving

KEY EDGE: Shell Argina XL 40, Shell LubeAnalyst and Shell LubeVideoCheck



SH10015

The Energia y Agua Pura de Cozumel (Cozumel) power plant was the first to be fueled with heavy oil in Mexico and supplies its network distributors with electricity. Low oil performance led to poor engine cleanliness and problems caused by soot and deposits.

Cozumel was trying to manage base number depletion without any guidance from its existing lubricant supplier regarding the oil sweetening process. Sharp falls in base numbers had been experienced with two different products in its four diesel engines. An engine inspection confirmed a heavy build-up of soot and deposits: a direct result of the engine oil base number dropping below a critical level.

Shell’s technical team proposed a best-in-class premium product alternative, Shell Argina XL 40 and the Shell LubeAnalyst and Shell LubeVideoCheck services to ensure base number monitoring and control.

Cozumel has found that using Shell Argina XL 40 and careful monitoring means that the engines are much cleaner than before with fewer deposits in their chambers and valves. Through a combination of oil choice and a precise sweetening regime, the top-up volume dropped from 125 to 112 L/d with Shell Argina XL 40. This resulted in a reported annual saving of US\$39,000 across the four engines, excluding the benefits from lower maintenance requirements and fewer replacement parts.

1

CHALLENGE

Cozumel was trying to manage base number depletion in its diesel power generation engines. An engine inspection confirmed a heavy build-up of soot and deposits: a direct result of the engine oil base number dropping below a critical level.

2

SOLUTION

Shell's technical team proposed a best-in-class premium product alternative, Shell Argina XL 40 and the Shell LubeAnalyst and Shell LubeVideoCheck services to ensure base number monitoring and control.

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OUTCOME

Cozumel has found using Shell Argina XL 40 and careful monitoring means that the engines are much cleaner than before with fewer deposits in their chambers and valves.

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VALUE

Through a combination of oil choice and a precise sweetening regime, Cozumel has reported annual savings of US\$39,000, excluding the benefits from lower maintenance requirements and fewer replacement parts.*

*The savings indicated are specific to the calculation date and the mentioned site. These calculations may vary from site to site, depending on the application, the operating conditions, the current products being used, the condition of the equipment and the maintenance practices.

SHELL ARGINA XL

PRODUCT SOLUTION FOR ENERGIA Y AGUA PURA DE COZUMEL

Shell Argina XL is a multifunctional crankcase lubricant for highly rated, medium-speed diesel engines operating on residual fuel oil. Shell Argina XL is designed for conditions of very high oil stress and for improving deposit control.

Improved engine reliability

Extremely high detergency and dispersancy prevent sludge from forming and keep crankcases, valves, pistons lands and the critical piston undercrown area exceptionally clean. An extra-high total base number (50) means that a satisfactory equilibrium base number level can be maintained under harsh conditions, which would be impossible using an oil with a total base number of 40.

Lower maintenance costs

Good thermal and oxidative stability help the oil to resist thickening and result in much longer oil life and minimised wear of piston rings and cylinder liners.

Reassurance

A comprehensive range of engine manufacturers' approvals



Main applications

Medium-speed industrial or marine propulsion and auxiliary engines burning residual fuel oils, which create conditions of very high oil stress. These conditions usually occur

- in newer engine designs with flame rings, especially those from Wärtsilä
- where oil consumption is <0.5 g/kWh
- where load factors are >90%
- where fuels with sulphur levels >3% are used
- in medium-speed engines burning residual fuel, which need very specialised lubricants
- in very high stress conditions, which are found most often in modern Wärtsilä engines in power plant or ship propulsion applications.

Complementary products

Equipment	Lubricants
Diesel engine	Shell Alexia 50, Shell Alexia LS, Shell Melina, Shell Melina S, Shell Argina S, Shell Argina T, Shell Argina X, Shell Argina XL, Shell Gadinia, Shell Gadinia AL
Turbocharger	Shell Corena AS, Shell Turbo T
Generator	Shell Gadus V100
Oil and fuel separator	Shell Morlina S4 B