

Cat® Oils

CUSTOMER: National Electricity Technology Co - Kahraba

FLEET SIZE: (4) Prime Power Gas Engines

INDUSTRY/APPLICATION: Power Generation

SITUATION:

Kahraba is a leader in electrical power generation and distribution as it produces 42M KW hr. per year. The (4) Cat gas engines (3x G3516E, 1x G3520C) are essential in producing electricity at the New American University site in New Cairo as the average working hr. rate per year is about 6000/unit. Kahraba was previously changing engine oil (Non Cat) on 1000 hour interval.

SOLUTION:

Cat Dealer, Mantrac, proposed the customer make the switch from the competitive engine oil to Cat NGE0 Advanced 40. Mantrac also supported the customer through:

- Trial fill of 423 liters per unit at no charge to the customer
- No cost S•O•SSM samples (customer had used (3) different oil labs in the past)
- Technical support and follow up during the 4 month trial period

At the conclusion of the trial, Mantrac determined the optimum oil change interval to be 1100-1200 working hours.



PROOF OF PERFORMANCE

15-20% savings in oil costs due to extended drain intervals made possible by Cat NGE0 Advanced 40.

Using CAT oil decreases unit downtime during oil changes as well as oil filter changes. By applying periodic S•O•SSM sampling to alert any sudden spikes in "wear elements" pattern, customers are able to predict issues and avoid sudden failures.

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CUSTOMER: Arab Contractors

FLEET SIZE: 84 Machines

INDUSTRY/APPLICATION: Heavy Construction

SITUATION:

Arab Contractors is an industry leader known for their work in large-scale heavy construction projects not only in Egypt but also in different countries in the region. They are currently working on the Cairo-Alex. desert road. This customer historically conducted their own maintenance.

SOLUTION:

The customer enrolled their (84) machines in maintenance contracts with local dealer Mantrac. This ensures the machines are maintained to OEM specifications using Caterpillar fluids.



PROOF OF PERFORMANCE

Cost savings of \$21,000 as a result of extending oil change intervals from 150 to 250 hours.

And, with extended intervals, engine oil changes have decreased (8) times per year which translates to a reduction in labor charges, filter changes, transportation charges, customer parts stocking, and machine downtime.

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CUSTOMER: OJSC Aldanzoloto GRK (Polyus Group)

FLEET SIZE: 18 Machines/Engines

INDUSTRY/APPLICATION: Mining

SITUATION:

Aldanzoloto was using Cat® Oils through the warranty period, and then switching to another brand when the warranty expired. After several years of running competitive products, their 972H experienced an early hour (7800 SMU) engine failure.

SOLUTION:

After they experienced the engine failure, the Aldanzoloto enrolled the entire fleet in maintenance contracts with their Cat Dealer, Vostochnya Technica, and now use only Cat Oils (DEO 10W30, HYDO Advanced 10, TDTO 10/30/50, Arctic Platinum, and Advanced 3Moly).



PROOF OF PERFORMANCE

Cost per hour was lowered by 66% and achieved 23,241 trouble free SMUs since switching to Cat Fluids.

Aldanzoloto also experienced prolonged component lives on their 988H and 834H - 26,226 (\$1.67 CPH) and 29,950 (\$1.55 CPH) SMUs respectively.

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CUSTOMER: Zalman Barashy Company

FLEET SIZE: 40 Machines

INDUSTRY/APPLICATION: Heavy Construction

SITUATION:

Zalman Barashy company, based in Israel, specializes in infrastructure and road construction projects. The company operates 40 Cat® machines including Dozers, Excavators, Motor Graders and Wheel Loaders. While using another brand of market general oil, they were incurring significant operation and maintenance costs.

SOLUTION:

Zalman Barashy engineers, in joint cooperation with local Cat Dealer Tractors and Equipment, decided to switch to Cat lubricants from the other market general brand. For three years, Zalman Barashy used Cat lubricants while a team of engineers gathered maintenance data on oil change intervals as well as change intervals on filters and other components. They compared that maintenance data to Caterpillar S•O•SSM labs to justify the results of extended oil drain intervals and improved parts wear performance. Cat DEO was used as the only engine oil in their machines.

Drivetrain and transmissions were lubricated by original Cat TDTO oils. The engine and transmission oils were used as a part of a comprehensive Customer Service Agreement which helped to monitor the benefits of Cat oil usage on the heavy machinery.



PROOF OF PERFORMANCE

42% reduction in wear metals in critical machine components from engine and transmission parts, resulting in annual maintenance cost savings of \$45,000.

This customer also realized \$16,500 of savings as a result of extending drain intervals.

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CAT FDAO 60 HELPS PERUVIAN MINING COMPANY TO EXTEND DRAIN INTERVALS IN FINAL DRIVES AND AXLES, INCREASING FLEET AVAILABILITY AND EXTENDING COMPONENTS LIFE

Minera Yanacocha S.R.L.
Ferreyros S.A.
Cajamarca, Perú - September 2013

Situation

Compañía Minera Yanacocha is the largest gold mine in South America. Located in Peru at 3900 m.a.s.l., it operates since 1993 with a fleet that includes 112 Caterpillar Trucks (777D, 777F, 785C, 793B, 793D and 793F).

Until 2002 they were using a competitive oil in final drives and axles with a 2000 hours oil drain interval.



Recommendation

In 2002 Ferreyros (Caterpillar Dealer) recommended the customer to switch to CAT FDAO SAE 60. Caterpillar Final Drive Axle Oil provides excellent rust protection and copper corrosion, inhibits oxidation, gives better protection against wear and pitting, and minimizes the generation of foam.

Benefits

During the past 11 years the Caterpillar lubricant performance has been periodically monitored through S.O.S. Oil Analysis Program, along with Yanacocha's contamination control practices (Filtration and Magnetic plugs) the customer achieved the following benefits:

- Extended drain intervals: From 2000 to 6000 hours, going up to 8000 hours.
- Reduced Operating Costs: Extending components life and increasing equipment availability
- Environmental Care: Reducing polluting waste (used oil) and improving solid waste disposal management.