

## Case Study

Cement Mine Gear Lube Filtration  
South Africa, 2016

### Problem:

A cement mine consumed 6 drums/year of Molub-Alloy 8031-3000 open gear high viscosity oil base gel >78,000 cPs at a cost of \$12,000 USD/year. Traditional filtration is unable to sufficiently filter this highly viscous oil gel at the necessary flow rate, also insufficient filtration results in a one time product life. The gel was disposed of as a waste grease which has a significant environmental footprint.

### Solution:

One Eye Industries (OEI) filtration technology (24" OEI Magnetic Filter Scrubber) was applied in conjunction with the original traditional filtration to clean the oil when transferred from a dirty drum to a clean one. When cleaned, 75% of the oil in the first drum is recovered. This solution allows for the recycling of the oil 2-3 times over, eventually to be disposed of as used oil rather than waste grease

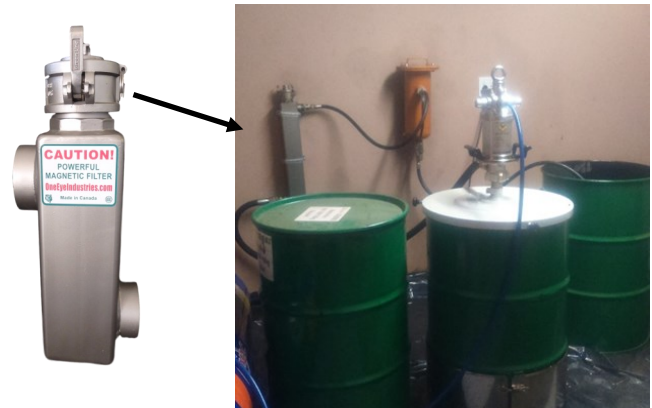
### Result:

Three OEM's approved the addition of the OEI Magnetic Scrubber. When the oil gel cycled through the OEI filter, ferrous and non-ferrous contamination was captured down to submicron level. Oil consumption was reduced by 3.75 drums/year saving over \$7500 USD. OEI filtration increases component life, lowers consumption and reduces disposal costs and the company's carbon footprint.

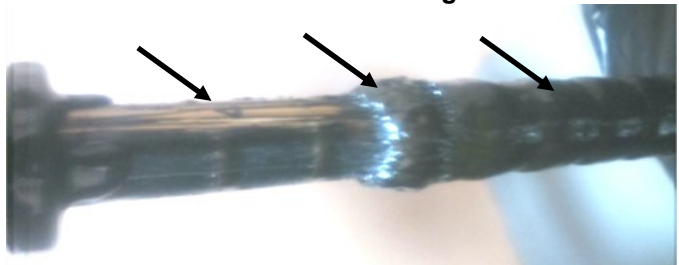
### ROI:

The recycling of the oil gel because of OEI magnetic filtration results in significant savings. The OEI Magnetic Filter System is amortized over 5 years equating the cost per year of savings.

24" OEI Magnetic Filter Scrubber



Contamination Caught



Contamination Analysis

Sample	Iron	Chromium	Nickel	Molybdenum	Aluminium	Copper	Tin	Lead	Titanium	PQ Index	Bismuth	
1	1607	6	3	1159	162	3	0	2	12	17919	2	Before filtering
	813	5	3	1057	48	2	0	0	1	2467	1	After first filtering
	106	2	1	1056	21	1	0	0	1	897	1	After second filtering