CASE STUDY

CUSTOMER
CANYON TECHNICAL

LOCATION
CALGARY, AB CANADA / JUN 2012 - MAY 2015

EQUIPMENT
ROLLER BEARING

APPLICATION
GEARBOX LUBE OIL

PROVEN RESULTS

$7,000 SAVINGS

REDUCED RISK OF ROLLER BEARING FAILURE

CHALLENGE

Bearing tolerances are under 3 microns and contamination under 3 microns was causing damage to Timken Roller Bearings as traditional 10 micron filters are unable to remove the most damaging contamination (iron and steel) below 10 microns to sub-micron in size.

SOLUTION

Install an OEI magnetic filter scrubber after a full size scrubber on the inlet of the gearbox to protect the system and determine how much contamination the primary scrubber was missing.

RESULTS

After 3 years of operation there have been no gear or roller bearing failures (saving $7,000 plus downtime), the oil cleanliness has improved and the life of the 10 micron conventional filters has been extended.

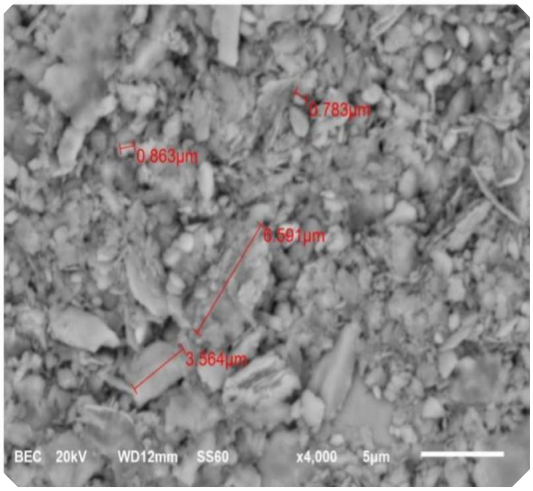
RECOMMENDED PRODUCT

MAGNETIC FILTER SCRUBBER

403.242.4221

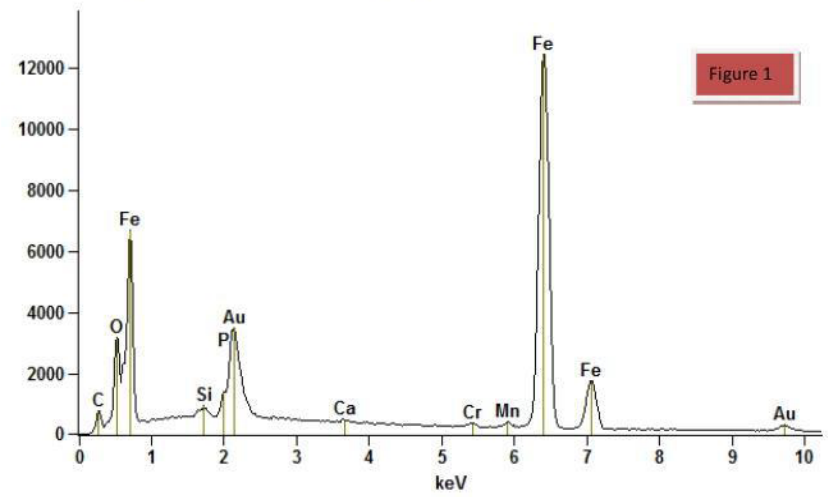
QUOTES@ONEEYEINDUSTRIES.COM

Photos show the amount of trapped contamination removed by the secondary scrubber from the system after 2 ½ years, showing that the majority of the contamination is being trapped by the primary magnetic filter.



The vaue of this gearbox is $30,000 and a rebuild runs at $7,000.

Analysis of the trapped contamination indicates that 6.88% was non-ferrous, 84.89% was ferrous and 8.23% was water. The photo at the right shows the bands of ferrous and non-ferrous contamination down to and below 3 microns.



Quantitative Results for: UJ7834 (1)

Element Line	Net Counts	Weight %	Atom %
C K	4955	2.80	10.78
O K	19756	3.55	10.26
Si K	2544	0.59	0.98
P K	4724	1.15	1.72
Ca K	683	0.18	0.21
Cr K	1447	0.54	0.48
Mn K	2161	0.89	0.75
Fe K	203713	90.30	74.83
Total		100.00	100.00