



## Mainlube Superior Maintenance Lubricants Pty Ltd

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A.C.N. 003-602-195

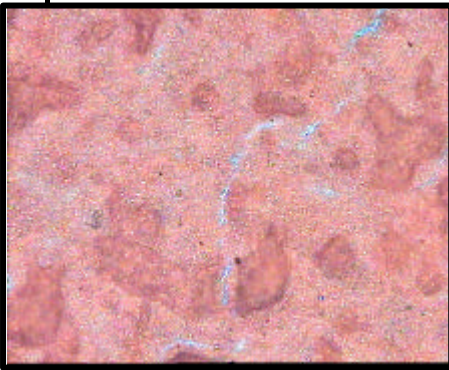
DATE 10/10/04

### Wear Metal Analysis No 5176 Steve VX SS T56 Gearbox

Attention; Steve

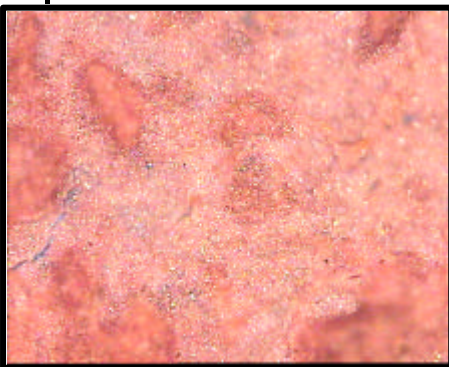
**Objective.** Check oil for Wear Metal Particles and any possible contamination, Information found used to establish machine condition and future maintenance requirements.

**Method.** Sample of approx 100 ml received from **T56 Gearbox. @ 52,000 k's on box, 32,000 k's on Mainlube 154 Solid Boundary E P Gear Oil.** Sample preparation in accordance with Mainlube standard laboratory practices. One sample processed 1 ml in volume; therefore the amount seen in the video pictures is the actual debris concentration per ml of oil.

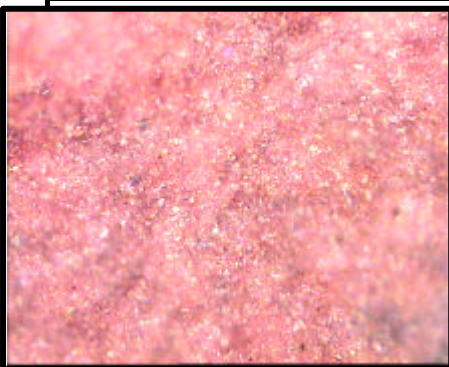


**One mil.** of the sample oil has been forced through a 13-mm diameter **0.3-micron membrane filter @ 150 P.S.I.** The membrane filter has caught any contaminates present, filters are glass slide mounted for examination. This image represents a 1-mm diameter circle focused on the top layer of the filter **@ 100X**. The green/blue coloured background is the microscopes bottom light shining up through the glass slide illustrating density level of dirt, metal chunks and debris particles.

**This image demonstrates the average debris level for sample No. 5170**  
*To achieve an acceptable life from this application,  
this image should be clear, no particles*



**Overview density of dirt,  
Wear Metal Chunks and debris particles @ 200X.**



**Overview density of dirt,  
Wear Metal Chunks and debris particles @ 500X.**

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**Recommendations**

This Gearbox is running well.

Retest every 6 months until trends are established.

*This analysis is intended as an aid in predicting mechanical wear, and should be used in conjunction with (and not as a replacement for) your normal maintenance routine for the care of your machinery. All care will be taken in the processing of samples by the user but no guarantee, express or implied, is made against failure of this piece of equipment or a component part hereof.*

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**Steve Simmonds** ATCAE  
Managing Director.