



Fluids Analysis Lab

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Doug,

I have reviewed the results from oil samples for the customers that have used your filtration systems. These customers come from city and county maintenance shops, farm equipment and construction equipment. I can honestly say that all of the results have been very impressive.

One example is that of Gratech Construction. The new oil sample of Mobil Delvac 1300 was particle counted, using LaserNet Fines technology, and indicated an ISO of 24/22/18. This new oil, unscrubbed, is actually very dirty and would have potentially taken life out of the engine that it was going in. With your oil scrubber system, the ISO was reduced to 16/14/10! That indicates a reduction of 4 micron sized particles from 91,933 to just 532 per milliliter of sample! What that means to your customer is that component life is increased by a factor of 9 times. It is a big mistake to think that new oil is clean.

The only way to measure the cleanliness of new oil is to particle count the oil. One cannot measure the cleanliness by just looking at the oil or even from the wear elements tests. It must be particle counted. By analyzing the results of your scrubber I can conclude:

- That every sample that comes out of Oil Transfer Systems scrubbers, is significantly cleaner than the unscrubbed oil, including new oils.
- Life expectancy will be increased from 4-9 times longer if the oil is scrubbed at regular intervals.
- Oil drain intervals can be extended from 500 hours even up to **800 hours** on diesel engines that are operating properly.
- Maintenance costs will decrease due to less oil used, less waste disposal, and less downtime for maintenance.

In the oil analysis industry we call this approach Condition Based Monitoring. This is where oil and components are changed only when needed, not based on some preset time interval. Your goal and mine is to make the job of the maintenance manager easier through use of our services. Your oil scrubbing systems are an excellent way to increased oil and component life. The key is to measure the results through particle counting and the other typical lab tests.

Let me know if I can help your customers in any way.

Regards,

Bruce Morton
Laboratory Manager
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