



UNIT INFORMATION

Unit: 204562
 Equip Make: Sterling
 Equip Model: Hwy Truck
 Equip Serial: 2FZHAZAS54AM69036
 Component: Hydraulic

Eng Make:
 Eng Model:
 Eng Serial:
 Warranty End:
 Hour Limit:

PM SERVICE INFORMATION

Job Site:
 Oil Brand: Hyde
 Oil Blend: Dexron
 Oil Viscosity: Unspec
 PM:

Evaluation / Recommendation (for sample taken 12/01/2004)

Test results indicate normal levels for this compartment. No excessive wear is indicated at this time. Continue to monitor by sampling at the recommended interval.

Was this sample filtered? It is much cleaner than the other sample.

After filtering with scrubber.

Butler SOS Analyst
Mark Mathys

50 X

SAMPLE INFORMATION			ELEMENTAL ANALYSIS (Parts Per Million)																		FT-IR ANALYSIS							
Date Taken	Hrs/Miles		Cu Copper	Fe Iron	Cr Chrome	Ni Nickel	Ti Titanium	Ag Silver	Pb Lead	Sn Tin	Al Alum	Si Silicon	Na Sodium	K Potass	Mo Moly	B Boron	Ba Barium	Ca Calcium	Mg Magnes	Mn Mangan	P Phosph	Zn Zinc	Oil Condition					
	On Unit	On Oil																					Soot	Sulf	Oxid	Nitr	Anti Wear	
12-01-04	6632	6632	0	3	0	0	0	0	1	1	0	5	1	0	2	67	0	123	7	0	234	75						

OIL CHANGE HISTORY							PARTICLE COUNT (per 1 mL)								PQ	ISO	PVi	PHYSICAL				
Date Taken	Changed		Oil Added	Label Visc	Visc SAE	Visc cSt 100°C	>5µ	>10µ	>15µ	>20µ	>25µ	>50µ	>75µ	>100µ	Ferrous Debris	ISO Code	Particle Volume	Anti-Freeze	Fuel Dilution	Water		
	Oil	Filter																				
12-01-04	No	No		Unspec	?	6.7	958	182	43	14	6	0	0	0	19	17/13	0	Neg	Neg	Neg		

FYI - This sample took 12 days to reach the lab. ■

Minnesota Department of
 Transportation
 PO Box 617
 Crookston, MN 56716

14122520
 Date Taken 12/01/2004

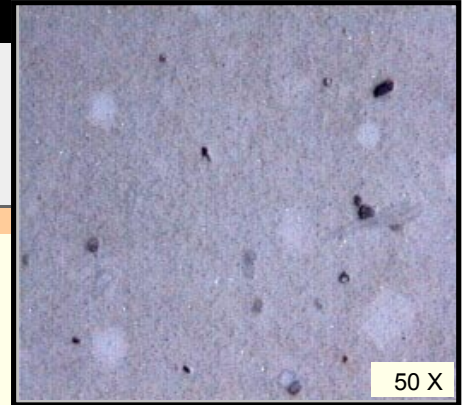
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Evaluation / Recommendation (for sample taken 12/01/2004)

Particle counts are high and exceed the ISO 18/15 recommended by Caterpillar.

This is a new truck & we just purchased our oil scrubber. For now I am mainly interested in particle counts.

Before filtering with scrubber.

Butler SOS Analyst
 Mark Mathys

SAMPLE INFORMATION			ELEMENTAL ANALYSIS (Parts Per Million)																			FT-IR ANALYSIS					
Date Taken	Hrs/Miles		Cu Copper	Fe Iron	Cr Chrom	Ni Nickel	Ti Titanium	Ag Silver	Pb Lead	Sn Tin	Al Alum	Si Silicon	Na Sodium	K Potass	Mo Moly	B Boron	Ba Barium	Ca Calcium	Mg Magnes	Mn Mangan	P Phosph	Zn Zinc	Oil Condition				
	On Unit	On Oil																					Soot	Sulf	Oxid	Nitr	Anti Wear
12-01-04	6632	6632	1	15	2	0	0	0	3	0	5	22	6	1	1	76	0	93	6	0	243	62					

OIL CHANGE HISTORY							PARTICLE COUNT (per 1 mL)								PQ	ISO	PVi	PHYSICAL			
Date Taken	Changed		Oil Added	Label Visc	Visc SAE	Visc cSt 100°C	>5µ	>10µ	>15µ	>20µ	>25µ	>50µ	>75µ	>100µ	Ferrous Debris	ISO Code	Particle Volume	Anti-Freeze	Fuel Dilution	Water	
	Oil	Filter																			
12-01-04	Unk	Unk		Unspec	?	6.6	53502	6459	408	110	33	4	1	0	25	23/16	7	Neg	Neg	Neg	

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