WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

FREIGHTLINER CASCADIA 1224

Component Diesel Engine

Fluid
MORII 15W40 (---

Sample Varie Machine Age mils Client Info 0 0	MOBIL 15W40 (GAL)							
Sample Number Client Info	RECOMMENDATION	Test	HOM	Method	I imit/Ahn	Current	History1	History2
	TEGOMMENDATION		COM		Little			
Machine Age mils Client Info 0	Resample at the next service interval to monitor.							
Oil Age			mls					
Filter Age		•						
Oil Changed Client Info Changed Change								
Filter Changed Client Info Changed NORMAL NORMA		_				Changed		
VEAR				Client Info				
Chromium ppm ASTM D5185m 5 2 0						_		
Chromium ppm ASTM D5185m 5 2 0	WEAR							
Nickel ppm ASTM D5185m >2 0	WEAR							
Nickel Spill Namical N	All component wear rates are normal.							
Silver ppm ASTM D5185m >3 0					>2			
Aluminum ppm ASTM D5185m >30 <1								
Lead								
Copper ppm ASTM DS185m >150 0								
Tin								
Vanadium ppm ASTM D5185m 0								
White Metal Scalar *Visual NONE NO					>5			
Vellow Metal scalar Visual NONE NONE Silicon ppm ASTM 05185m >20 2 Potassium ppm ASTM 05185m >20 0 Potassium ppm ASTM 05185m >20 0 Visual NONE NEG Water WC Method So 4.1.0 With a minute So With a minute					NONE	-		
Silicon ppm ASTM D5185m >20 2								
Potassium ppm ASTM D5185m 2-0 0		Yellow Metal	scalar	^Visual	NONE	NONE		
Potassium ppm ASTM D5185m 2-0 0	CONTAMINATION	Silicon	mag	ASTM D5185m	>20	2		
Fuel WC Method So So So WC Method So WC			• •					
Water WC Method So.2 NEG So.5 NEG So.5 NEG So.5 NEG NEG So.5 NEG NEG	There is no indication of any contamination in the oil.		1-1-					
Glycol WC Method NEG Soot %		Water		WC Method	>0.2			
Soot %		Glycol				NEG		
Sulfation Abs/.tmm *ASTM D7415 >30 17.9 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML NORML Codor scalar *Visual NORML NORM		•	%	*ASTM D7844	>3	0.1		
Silt scalar *Visual NONE NO		Nitration	Abs/cm	*ASTM D7624	>20	5.8		
Debris Scalar *Visual NONE NORML		Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9		
Sand/Dirt Scalar *Visual NONE NONE NORML		Silt	scalar	*Visual	NONE	NONE		
Appearance Scalar *Visual NORML NORML NORML Emulsified Water Scalar *Visual NORML NORML NORML NORML Emulsified Water Scalar *Visual NORML		Debris	scalar	*Visual	NONE	NONE		
Odor Emulsified Water scalar *Visual visual v		Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water scalar *Visual >0.2 NEG		Appearance	scalar	*Visual	NORML	NORML		
Sodium ppm ASTM D5185m >118 Barium ppm ASTM D5185m > 18 Molybdenum ppm ASTM D5185m 930 Magnesium ppm ASTM D5185m 930 Calcium ppm ASTM D5185m 1033 Phosphorus ppm ASTM D5185m 1048 Sulfur ppm ASTM D5185m 1216 Cuidation Abs/.1mm *ASTM D5185m 2987 Calcium Ppm ASTM D5185m 2987 Calcium Ppm ASTM D5185m 2987 Calcium Ppm ASTM D5185m 2987 Calcium Ppm ASTM D5185m 2987 Calcium Ppm ASTM D5185m 2987 Calcium Ppm ASTM D5185m 2987 Calcium Ppm ASTM D5185m 2987 Calci		Odor	scalar	*Visual	NORML	NORML		
Boron ppm ASTM D5185m D		Emulsified Water	scalar	*Visual	>0.2	NEG		
Boron ppm ASTM D5185m D	ELUID CONDITION	Cadium		ACTM DE10Em	. 110	.4		
Barium ppm ASTM D5185m D0 Molybdenum ppm ASTM D5185m D7 Phosphorus Phosphorus ppm ASTM D5185m D7 Phosphorus Phosphorus Ppm ASTM D5185m D7 Phosphorus Ppm	FLUID CONDITION				>110			
Molybdenum ppm ASTM D5185m	The BN result indicates that there is suitable alkalinity remaining in the							
Manganese ppm ASTM D5185m <1	oil. The condition of the oil is suitable for further service.							
Magnesium ppm ASTM D5185m 930 Calcium ppm ASTM D5185m 1033 Phosphorus ppm ASTM D5185m 1048 Zinc ppm ASTM D5185m 1216 Sulfur ppm ASTM D5185m 2987 Oxidation Abs/.1mm *ASTM D7414 >25 14.0 Base Number (BN) mg KOH/g ASTM D2896 8.6								
Calcium ppm ASTM D5185m 1033 Phosphorus ppm ASTM D5185m 1048 Zinc ppm ASTM D5185m 1216 Sulfur ppm ASTM D5185m 2987 Oxidation Abs/.1mm *ASTM D7414 >25 14.0 Base Number (BN) mg KOH/g ASTM D2896 8.6								
Phosphorus ppm ASTM D5185m 1048 Zinc ppm ASTM D5185m 1216 Sulfur ppm ASTM D5185m 2987 Oxidation Abs/.1mm *ASTM D7414 >25 14.0 Base Number (BN) mg KOH/g ASTM D2896 8.6		•						
Zinc ppm ASTM D5185m 1216 Sulfur ppm ASTM D5185m 2987 Oxidation Abs/.1mm *ASTM D7414 >25 14.0 Base Number (BN) mg KOH/g ASTM D2896 8.6								
Sulfur ppm ASTM D5185m 2987 Oxidation Abs/.1mm *ASTM D7414 >25 14.0 Base Number (BN) mg KOH/g ASTM D2896 8.6								
Oxidation Abs/.1mm *ASTM D7414 >25 14.0 Base Number (BN) mg KOH/g ASTM D2896 8.6								
Base Number (BN) mg KOH/g ASTM D2896 8.6					>25			





Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: WC0893872 Lab Number : 06085864 Unique Number : 10873309

Received **Tested** Diagnosed

: 12 Feb 2024 : 13 Feb 2024

: 13 Feb 2024 - Wes Davis

CONCRETE SERVICE CO - FAY BLOCK 161 BUILDERS BLVD

FAYETTEVILLE, NC US 28301

Contact: Service Manager

Test Package : MOB 1 (Additional Tests: TBN) To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: