WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Machine Id

## **FREIGHTLINER CASCADIA 2129**

Component Diesel Engine

MORII 15W40 (--- GAI

Test	MOBIL 15W40 ( GAL)							
Resample at the next service interval to monitor.	RECOMMENDATION	Test	HOM	Method	I imit/Ahn	Current	History1	History2
Sample at the next service interval to monitor.	TIEGOMMENDATION		O O IVI		Little7 ton		,	
Machine Age   mis   Client Info   0   0	Resample at the next service interval to monitor.							
Oil Age			mls					
Filter Age		•						
Oil Changed   Chient Info   Changed   Change				Client Info				
Filter Changed   Client Info   Changed   Client Info   Changed		-				Changed		
No Repair   No R		_		Client Info				
All component wear rates are normal.    Chromium   ppm   ASTM D5155m   52   0   0		_				_		
All component wear rates are normal.    Chromium   ppm   ASTM D5155m   52   0   0	WEAR							
All component wear rates are normal.    Nicke	WEAR							
Titanium   ppm   ASTM D6185m   2	All component wear rates are normal.							
Silver   ppm   ASTM 05185m   >30   0   2					>2			
Aluminum   ppm   ASTM D5185m   >30   2								
Lead								
Copper								
Time   ppm   ASTM   D5185m   >5   <1								
Vanadium   ppm   ASTM D5185m   0   0								
White Metal   Scalar   *Visual   NONE   NO					>5			
Solicon					NONE	-		
Silicon   ppm   ASTM D5185m   20   6								
Potassium   ppm   ASTM 05185m   >0   0		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium   ppm   ASTM 05185m   >0   0	CONTAMINATION	Silicon	mag	ASTM D5185m	>20	6		
Fuel   WC Method   So   So   So   So   So   So   So								
Water   WC Method   0.0.2   NEG           Glycol   WC Method   Soot %   NEG   WC Method	There is no indication of any contamination in the oil.		<b>PP</b>					
Glycol   WC Method   NEG           Soot %								
Soot %								
Nitration		-	%		>3			
Sulfation   Abs/.fmm   *ASTM D7415   >30   18.5		Nitration	Abs/cm	*ASTM D7624	>20	6.6		
Silt   scalar   *Visual   NONE   NONE   NONE   Sand/Dirt   scalar   *Visual   NONE		Sulfation	Abs/.1mm	*ASTM D7415	>30			
Sand/Dirt   scalar *Visual   NONE   NONE   NORML   N		Silt	scalar					
Appearance		Debris	scalar	*Visual	NONE	NONE		
Codor   Scalar *Visual   NORML   NORML   Fmulsified Water   Scalar *Visual   Scalar *Visual *Scalar *Visual *Scal		Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water   scalar *Visual   >0.2   NEG		Appearance	scalar	*Visual	NORML	NORML		
Sodium   ppm   ASTM D5185m   >118   1		Odor	scalar	*Visual	NORML	NORML		
Boron   ppm   ASTM D5185m   4           Marganese   ppm   ASTM D5185m   D1023         Phosphorus   ppm   ASTM D5185m   D1023         Phosphorus   ppm   ASTM D5185m   D1024         Zinc   ppm   ASTM D5185m   D1024         Sulfur   ppm   ASTM D5185m   D1024           Sulfur   ppm   ASTM D5185m   D1024           Sulfur   ppm   ASTM D5185m   D1024           Sulfur   ppm   ASTM D5185m   D1024             Sulfur   ppm   ASTM D5185m   D1024             Sulfur   ppm   ASTM D5185m   D1024                 Sulfur   ppm   ASTM D5185m   D1024		<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG		
Boron   ppm   ASTM D5185m   4           Marganese   ppm   ASTM D5185m   D1023         Phosphorus   ppm   ASTM D5185m   D1023         Phosphorus   ppm   ASTM D5185m   D1024         Zinc   ppm   ASTM D5185m   D1024         Sulfur   ppm   ASTM D5185m   D1024           Sulfur   ppm   ASTM D5185m   D1024           Sulfur   ppm   ASTM D5185m   D1024           Sulfur   ppm   ASTM D5185m   D1024             Sulfur   ppm   ASTM D5185m   D1024             Sulfur   ppm   ASTM D5185m   D1024                 Sulfur   ppm   ASTM D5185m   D1024	EL LUD CONDITION	····		AOTH DE LOS	440			
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   57         Manganese   ppm   ASTM D5185m   57         Magnesium   ppm   ASTM D5185m   913         Calcium   ppm   ASTM D5185m   1023         Phosphorus   ppm   ASTM D5185m   1029         Zinc   ppm   ASTM D5185m   1204         Sulfur   ppm   ASTM D5185m   2890         Oxidation   Abs/.1mm *ASTM D7414   >25   14.0         Base Number (BN)   mg KOH/g   ASTM D2896   8.5	FLUID CONDITION				>118	1		
oil. The condition of the oil is suitable for further service.    Molybdenum   ppm   ASTM D5185m   57         Magnesium   ppm   ASTM D5185m   913         Calcium   ppm   ASTM D5185m   1023         Phosphorus   ppm   ASTM D5185m   1029         Zinc   ppm   ASTM D5185m   1204         Sulfur   ppm   ASTM D5185m   2890         Oxidation   Abs/.1mm *ASTM D7414   >25   14.0         Base Number (BN)   mg KOH/g   ASTM D2896   8.5	The BN result indicates that there is suitable alkalinity remaining in the							
Manganese         ppm         ASTM D5185m         <1								
Magnesium         ppm         ASTM D5185m         913             Calcium         ppm         ASTM D5185m         1023             Phosphorus         ppm         ASTM D5185m         1029             Zinc         ppm         ASTM D5185m         1204             Sulfur         ppm         ASTM D5185m         2890             Oxidation         Abs/.1mm         *ASTM D7414         >25         14.0             Base Number (BN)         mg KOH/g         ASTM D2896         8.5		-						
Calcium         ppm         ASTM D5185m         1023             Phosphorus         ppm         ASTM D5185m         1029             Zinc         ppm         ASTM D5185m         1204             Sulfur         ppm         ASTM D5185m         2890             Oxidation         Abs/.1mm         *ASTM D7414         >25         14.0             Base Number (BN)         mg KOH/g         ASTM D2896         8.5								
Phosphorus         ppm         ASTM D5185m         1029             Zinc         ppm         ASTM D5185m         1204             Sulfur         ppm         ASTM D5185m         2890             Oxidation         Abs/.1mm         *ASTM D7414         >25         14.0             Base Number (BN)         mg KOH/g         ASTM D2896         8.5		•						
Zinc         ppm         ASTM D5185m         1204             Sulfur         ppm         ASTM D5185m         2890             Oxidation         Abs/.1mm         *ASTM D7414         >25         14.0             Base Number (BN)         mg KOH/g         ASTM D2896         8.5								
Sulfur         ppm         ASTM D5185m         2890             Oxidation         Abs/.1mm         *ASTM D7414         >25         14.0             Base Number (BN)         mg KOH/g         ASTM D2896         8.5								
Oxidation         Abs/.1mm         *ASTM D7414         >25         14.0             Base Number (BN)         mg KOH/g         ASTM D2896         8.5								
Base Number (BN)   mg KOH/g   ASTM D2896   8.5					>25			
					>20			
VISC @ 100 O COL MOTIVI D440								
		V130 @ 100 O	COL	ACTIVIDATO		12.0	, <u>-</u>	•





Laboratory Sample No.

: WC0893852 Lab Number : 06085824 Unique Number : 10873269

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

: 12 Feb 2024 : 13 Feb 2024 : 13 Feb 2024 - Wes Davis Diagnosed Test Package : MOB 1 ( Additional Tests: TBN )

**CONCRETE SERVICE CO - FAY BLOCK** 

161 BUILDERS BLVD FAYETTEVILLE, NC US 28301 Contact: Service Manager

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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