

OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Machine Id **FREIGHTLINER 2003**

Diesel Engine Fluid **ROYAL PURPLE MOTOR OIL 15W40 (45 QTS)**

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

A Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

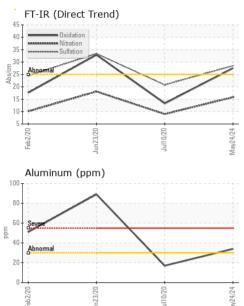
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

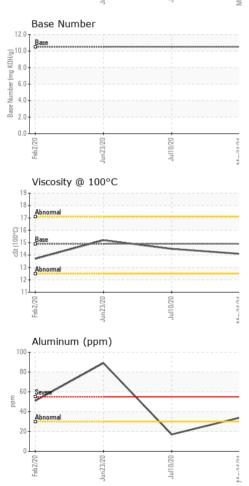
SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info 24 May 2024 WC01416546 WCM1402655 Sample Date Client Info 24 May 2024 10 Jul 2020 23 Jun 2020 Machine Age mits Client Info 100000 16368 100000 Oll Age Client Info Changed Not Changed Not Changed Not Changed Sample Status Client Info MomMAL NORMAL SEVERE CONTAMINATION method limit/base current history1 history2 Fuel WC Method >0.2 NEG NEG NEG NEG Glycol WC Method >0.2 NEG NEG NEG NEG Storp Mc Method >0.2 NEG NEG NEG NEG Glycol ppm ASTM D5185m >2.1 <1 <1 1 Iron ppm ASTM D5185m >3 3 15	5)		Feb202	0 Jun2020	Jul2020 M	ay2024		
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Machine AgemisClient Info128021139852123484Oli AgeClient Info10000016368100000Sample StatusIInABNORMANNORMALSEVERESample StatusVMethod5<1.0	Sample Number		Client Info		WC0720124	WC0416546	WCM1402655	
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Sodium ppm ASTM D5185m 6 1 4 Potassium ppm ASTM D5185m >20 86 40 ▲ 204 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.5 0.4 1.3 Nitration Abs/cm *ASTM D7624 >20 15.8 9 18.1 Sulfation Abs/.1mm *ASTM D7415 >30 28.5 20.8 33.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 27.5 13.3 32.9	CONTAMINANTS		method	limit/base	current	history1	history2	
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Soot % % *ASTM D7844 >3 1.5 0.4 1.3 Nitration Abs/cm *ASTM D7624 >20 15.8 9 18.1 Sulfation Abs/.1mm *ASTM D7415 >30 28.5 20.8 33.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 27.5 13.3 32.9	Potassium		ASTM D5185m	>20	86	40	2 04	
Nitration Abs/cm *ASTM D7624 >20 15.8 9 18.1 Sulfation Abs/.1mm *ASTM D7415 >30 28.5 20.8 33.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 27.5 13.3 32.9	INFRA-RED		method	limit/base	current	history1	history2	
Sulfation Abs/.1mm *ASTM D7415 >30 28.5 20.8 33.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 27.5 13.3 32.9	Soot %	%	*ASTM D7844	>3	1.5	0.4	1.3	
Sulfation Abs/.1mm *ASTM D7415 >30 28.5 20.8 33.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 27.5 13.3 32.9	Nitration	Abs/cm	*ASTM D7624	>20		9	18.1	
Oxidation Abs/.1mm *ASTM D7414 >25 27.5 13.3 32.9	Sulfation			>30		20.8		
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2	
Base Number (BN) mg KOH/g ASTM D2896 10.5 5.0	Oxidation	Abs/.1mm	*ASTM D7414	>25	27.5	13.3	32.9	
	Base Number (BN)	mg KOH/g	ASTM D2896	10.5	5.0			

Contact/Location: MASON NICHOLSON - DILASH

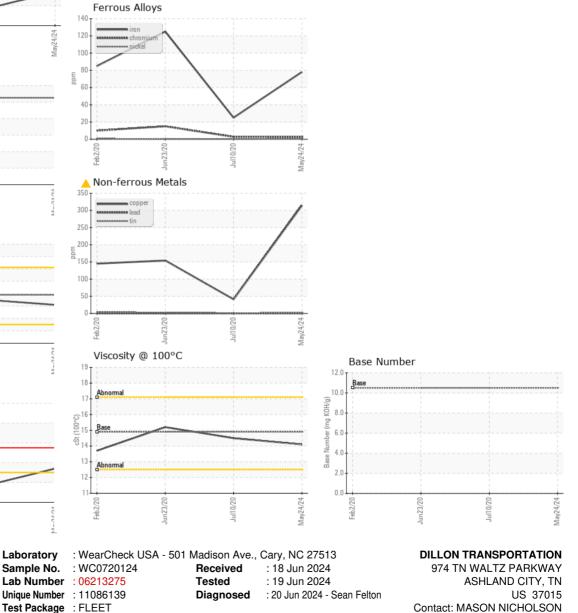


OIL ANALYSIS REPORT





VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
		method	in the base	Current	matory	mstoryz
Visc @ 100°C	cSt	ASTM D445	14.9	14.1	14.5	15.2
GRAPHS						



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) F: (615)469-4200

Report Id: DILASH [WUSCAR] 06213275 (Generated: 06/20/2024 14:15:00) Rev: 1

Certificate 12367

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