

Machine Id FREIGHTLINER 539 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (32 QTS)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

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All component wear rates are normal.

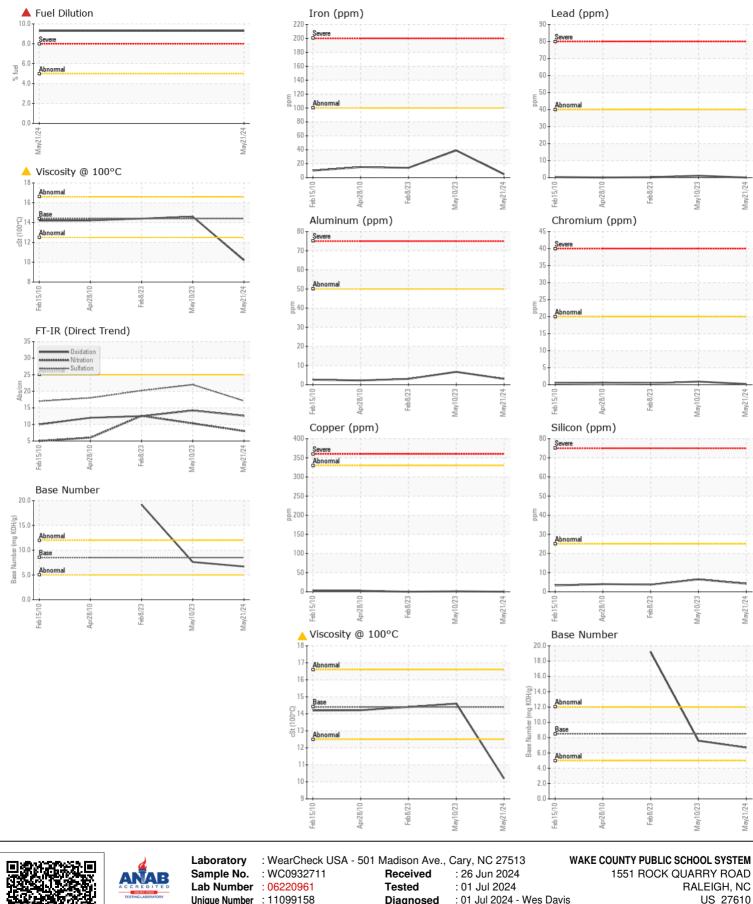
CONTAMINATION

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sample Date Client Info 21 May 2021 10 May 2023 08 Feb 2023 Machine Age mis Client Info 0 0 0 Oil Age mis Client Info 0 0 0 Oil Age mis Client Info Not Change Not Change Not Change Filter Age Client Info Not Change Not Change Not Change Not Change Sample Status Client Info Not Change Not Change Not Change Iron ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >22 0 0 <1 Silver ppm ASTM D5185m >22 0 0 <1 Copper pm ASTM D5185m >20 0 0 <1 Copper ppm ASTM D5185m >50 3 7 3 Lead ppm ASTM D5185m >50 0 <1 0							
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Calcium ppm ASTM D5185m 3000 1725 2767 1985 Phosphorus ppm ASTM D5185m 1150 815 1271 917 Zinc ppm ASTM D5185m 1350 1077 1552 1165 Sulfur ppm ASTM D5185m 4250 3077 4817 3762 Oxidation Abs/.1mm *ASTM D7414 >25 12.6 14.2 12.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.7 7.6 19.2	Manganese	ppm	ASTM D5185m		0	<1	<1
Phosphorus ppm ASTM D5185m 1150 815 1271 917 Zinc ppm ASTM D5185m 1350 1077 1552 1165 Sulfur ppm ASTM D5185m 4250 3077 4817 3762 Oxidation Abs/.1mm *ASTM D7414 >25 12.6 14.2 12.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.7 7.6 19.2	Magnesium	ppm	ASTM D5185m	450	77	59	42
Zinc ppm ASTM D5185m 1350 1077 1552 1165 Sulfur ppm ASTM D5185m 4250 3077 4817 3762 Oxidation Abs/.1mm *ASTM D7414 >25 12.6 14.2 12.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.7 7.6 19.2	Calcium	ppm	ASTM D5185m	3000	1725	2767	1985
Sulfur ppm ASTM D5185m 4250 3077 4817 3762 Oxidation Abs/.tmm *ASTM D7414 >25 12.6 14.2 12.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.7 7.6 19.2	Phosphorus	ppm	ASTM D5185m	1150	815	1271	917
Oxidation Abs/.1mm *ASTM D7414 >25 12.6 14.2 12.5 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.7 7.6 19.2	Zinc	ppm	ASTM D5185m	1350	1077	1552	1165
Base Number (BN) mg KOH/g ASTM D2896 8.5 6.7 7.6 19.2	Sulfur	ppm	ASTM D5185m	4250	3077	4817	3762
	Oxidation	Abs/.1mm	*ASTM D7414	>25	12.6	14.2	12.5
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.7	7.6	19.2
	Visc @ 100°C		ASTM D445		10.2	14.6	14.4



: 01 Jul 2024 - Wes Davis Unique Number : 11099158 Diagnosed Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN) Contact: DEVIN WEBER Certificate L2367 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)

Contact/Location: DEVIN WEBER - WCPRAL Page 2 of 2

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