

Machine Id FREIGHTLINER RL-39

Diesel Engine

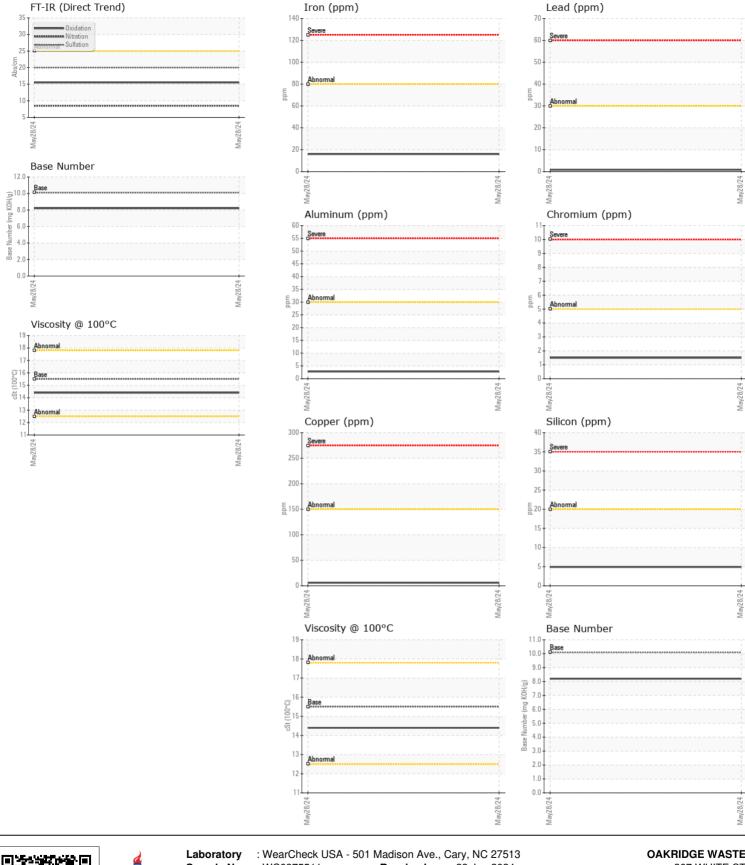
GIBRALTAR 15W/40 SUPER S-3 LX (--- GAL)

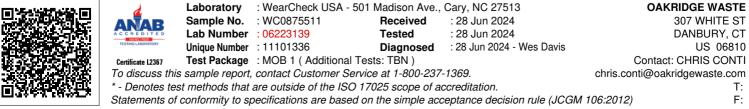
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0875511		
	Sample Date		Client Info		28 May 2024		
	Machine Age	hrs	Client Info		18375		
	Oil Age	hrs	Client Info		600		
	Filter Age	hrs	Client Info		600		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m		16		
	Chromium	ppm	ASTM D5185m		2		
	Nickel	ppm	ASTM D5185m	>2	<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		<1		
	Aluminum	ppm	ASTM D5185m	>30	3		
	Lead	ppm	ASTM D5185m	>30	<1		
	Copper	ppm	ASTM D5185m	>150	6		
	Tin	ppm	ASTM D5185m	>5	<1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon		ASTM D5185m	>20	5		
CONTAMINATION	Potassium	ppm	ASTM D5185m		2		
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		2 <1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	>0.2	NEG		
	Soot %	%	*ASTM D7844	. ?	0.4		
	Nitration	Abs/cm	*ASTM D7624	>20	8.5		
	Sulfation	Abs/.1mm	*ASTM D7024		20.0		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
		304141	Visual	20.2			
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.	Sodium	ppm	ASTM D5185m		2		
	Boron	ppm	ASTM D5185m		8		
	Barium	ppm	ASTM D5185m		2		
	Molybdenum	ppm	ASTM D5185m	66	70		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	1000	919		
	Calcium	ppm	ASTM D5185m		1267		
	Phosphorus	ppm	ASTM D5185m		1068		
	Zinc	ppm	ASTM D5185m		1346		
	Sulfur	ppm	ASTM D5185m		3313		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5		
	Base Number (BN)		ASTM D2896		8.2		
		ang nonng		10.1			

Visc @ 100°C cSt

ASTM D445 15.5

14.4





Contact/Location: CHRIS CONTI - OAKDANCT Page 2 of 2