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

**NORMAL NORMAL MARGINAL** 

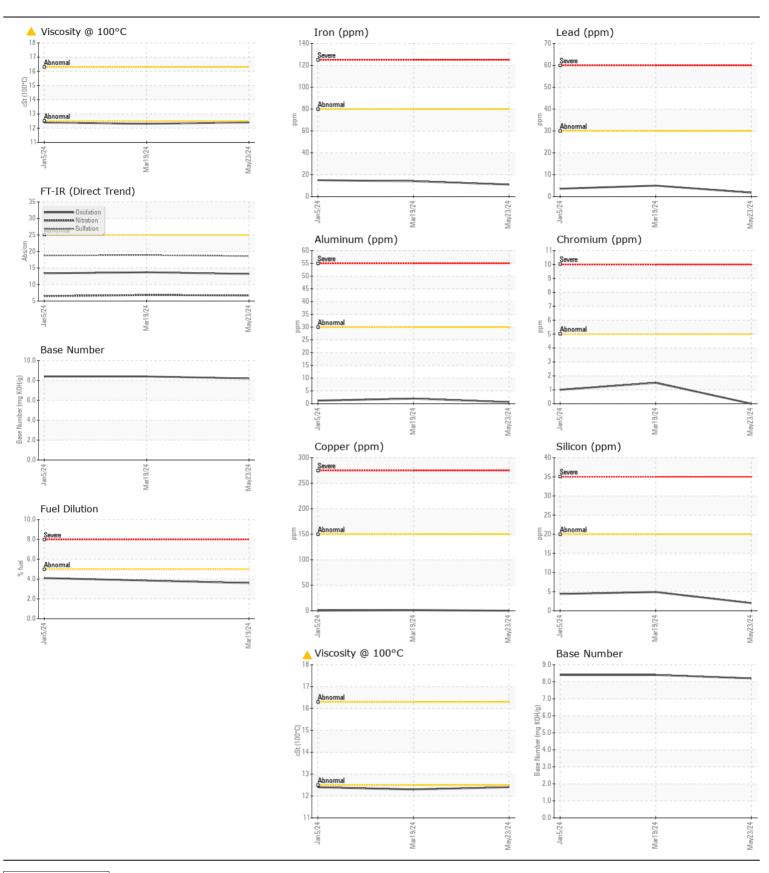
Machine Id

## **FREIGHTLINER 2127**

Component

Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0917220	WC0906191	WC087882
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		23 May 2024	19 Mar 2024	05 Jan 202
	Machine Age	mls	Client Info		262854	253145	242749
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				MARGINAL	ABNORMAL	ABNORMA
WEAR	Iron	ppm	ASTM D5185m	>80	11	14	15
	Chromium	ppm	ASTM D5185m		0	2	1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	1	0
	Titanium	ppm	ASTM D5185m		0	<1	<1
	Silver	ppm	ASTM D5185m	>3	0	<1	0
	Aluminum	ppm	ASTM D5185m		<1	2	1
	Lead	ppm	ASTM D5185m		2	5	4
	Copper	ppm	ASTM D5185m	>150	0	1	<1
	Tin	ppm	ASTM D5185m	>5	0	2	<1
	Vanadium	ppm	ASTM D5185m		0	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	2	5	4
CONTAMINATION	Potassium	ppm	ASTM D5185m		1	4	2
There is no indication of any contamination in the oil.	Fuel	%	ASTM D3524	>5	- <1.0	<u>^</u> 3.6	<u>4.1</u>
	Water	,,,	WC Method		NEG	NEG	NEG
	Glycol		WC Method	7 0.2	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.9	0.7	0.7
	Nitration	Abs/cm	*ASTM D7624	>20	6.7	6.8	6.5
	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	18.9	18.8
	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>118	0	<1	1
	Boron	ppm	ASTM D5185m		2	1	3
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		52	57	53
	Manganese	ppm	ASTM D5185m		0	1	<1
	Magnesium	ppm	ASTM D5185m		901	883	950
	Calcium	ppm	ASTM D5185m		1049	1029	1021
	Phosphorus	ppm	ASTM D5185m		962	1028	988
	Zinc	ppm	ASTM D5185m		1154	1150	1143
	Sulfur	ppm	ASTM D5185m		3487	3218	2911
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	13.7	13.4
	Base Number (BN)	mg KOH/g	ASTM D2896		8.2	8.4	8.4
	Visc @ 100°C	cSt	ASTM D445		<b>12.4</b>	<u></u> 12.3	<b>12.4</b>





Laboratory Sample No.

Lab Number : 06214274

: WC0917220

Unique Number: 11087138

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 19 Jun 2024 **Tested** : 21 Jun 2024

: 21 Jun 2024 - Jonathan Hester Diagnosed Test Package: MOB 1 (Additional Tests: FUELDILUTION, PercentFuel, TBN)

**CONCRETE SERVICE CO - FAY BLOCK** 161 BUILDERS BLVD FAYETTEVILLE, NC US 28301

Contact: BRYAN VANNIMAN bryanvanniman@fayblock.com T: (800)326-9198

\* - 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)