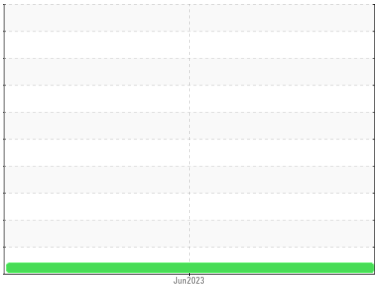
OIL DIAGNOSTICS

PROBLEM SUMMARY

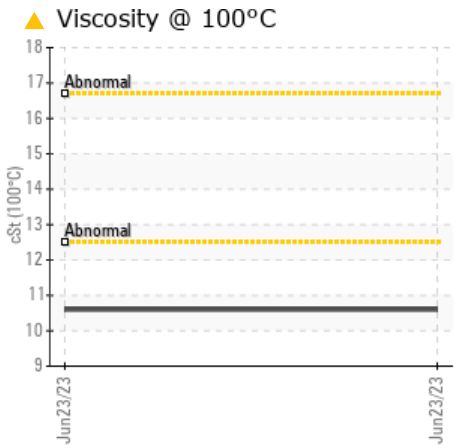
Sample Rating Trend

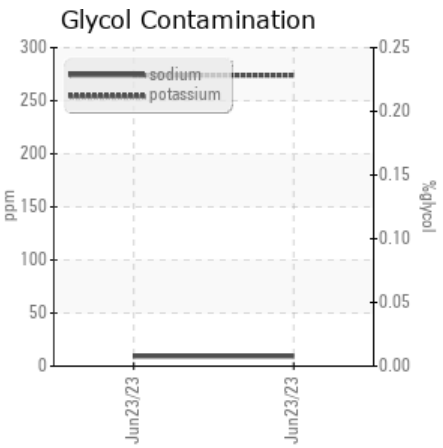


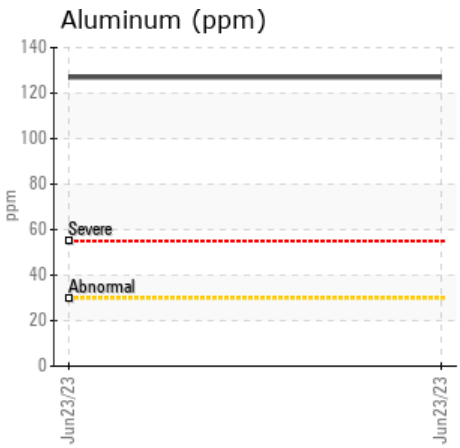
VISCOSITY

Machine Id
FREIGHTLINER 250
Component
Diesel Engine
Fluid
10W40 (--- GAL)

COMPONENT CONDITION SUMMARY







RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	---	---
Visc @ 100°C	cSt	ASTM D445		▲ **10.6**	---	---

Customer Id: ATRPIN
Sample No.: PCA0100647
Lab Number: 05885380
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

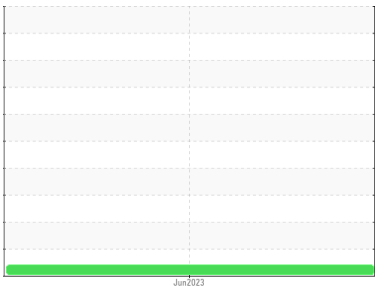
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
FREIGHTLINER 250
Component
Diesel Engine
Fluid
10W40 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

Metal levels are typical for a new component breaking in.

Contamination

Fuel content negligible. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**PCA0100647**	---	---
Sample Date		Client Info		**23 Jun 2023**	---	---
Machine Age	mls	Client Info		**54191**	---	---
Oil Age	mls	Client Info		**54191**	---	---
Oil Changed		Client Info		**Changed**	---	---
Sample Status				**ATTENTION**	---	---

CONTAMINATION		method	limit/base	current	history 1	history 2
Glycol		WC Method		**NEG**	---	---

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>80	**133**	---	---
Chromium	ppm	ASTM D5185m	>5	**8**	---	---
Nickel	ppm	ASTM D5185m	>2	**2**	---	---
Titanium	ppm	ASTM D5185m		**<1**	---	---
Silver	ppm	ASTM D5185m	>3	**0**	---	---
Aluminum	ppm	ASTM D5185m	>30	**127**	---	---
Lead	ppm	ASTM D5185m	>30	**2**	---	---
Copper	ppm	ASTM D5185m	>150	**224**	---	---
Tin	ppm	ASTM D5185m	>5	**6**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**<1**	---	---

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m		**24**	---	---
Barium	ppm	ASTM D5185m		**1**	---	---
Molybdenum	ppm	ASTM D5185m		**44**	---	---
Manganese	ppm	ASTM D5185m		**5**	---	---
Magnesium	ppm	ASTM D5185m		**532**	---	---
Calcium	ppm	ASTM D5185m		**1755**	---	---
Phosphorus	ppm	ASTM D5185m		**702**	---	---
Zinc	ppm	ASTM D5185m		**891**	---	---
Sulfur	ppm	ASTM D5185m		**2030**	---	---

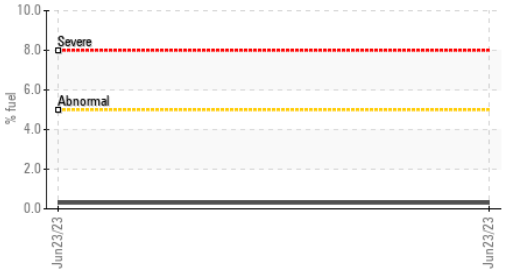
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>20	**11**	---	---
Sodium	ppm	ASTM D5185m		**9**	---	---
Potassium	ppm	ASTM D5185m	>20	**274**	---	---
Fuel	%	ASTM D3524	>5	**0.3**	---	---

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	**1.3**	---	---
Nitration	Abs/cm	*ASTM D7624	>20	**15.0**	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**26.8**	---	---

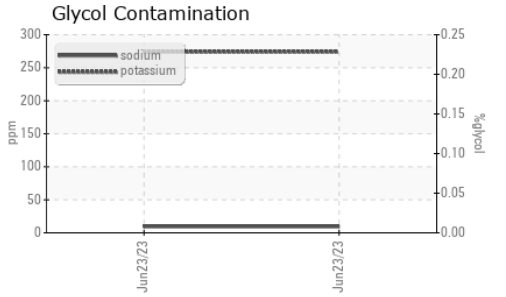
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**33.0**	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		**5.5**	---	---

OIL ANALYSIS REPORT

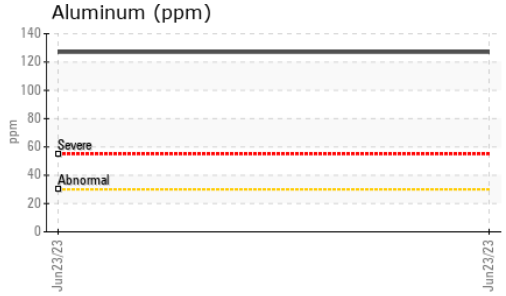
Fuel Dilution



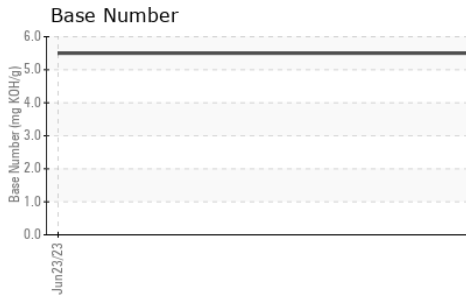
Glycol Contamination



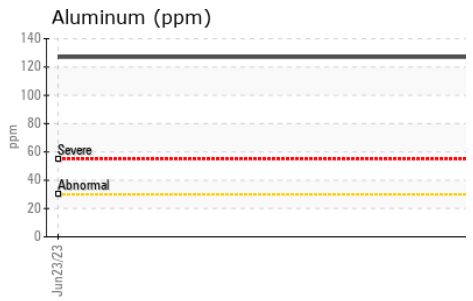
Aluminum (ppm)



Base Number



Aluminum (ppm)

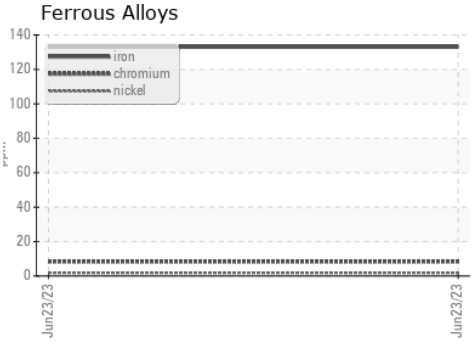


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.2	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

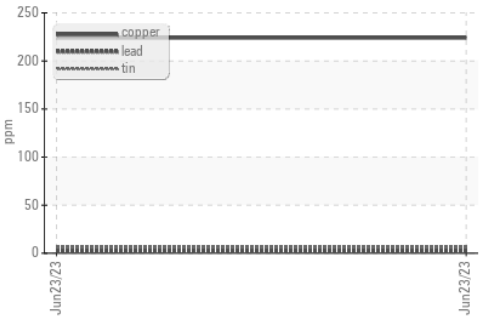
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445		▲ **10.6**	---	---

GRAPHS

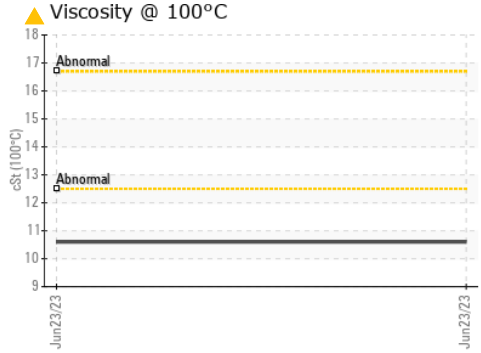
Ferrous Alloys



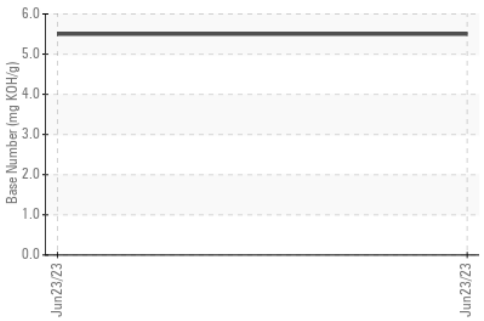
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0100647 **Received** : 28 Jun 2023
Lab Number : 05885380 **Diagnosed** : 30 Jun 2023
Unique Number : 10535863 **Diagnostician** : Don Baldridge
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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)

A Truck Repair
9349 China Grove Church Road
Pineville, NC
US 28134
Contact: Vlad Melnichuk
shop@migway.com
T: (980)255-3200
F:

Report Id: ATRPIN [WUSCAR] 05885380 (Generated: 06/30/2023 14:21:46) Rev: 1

Submitted By: Vlad Melnichuk