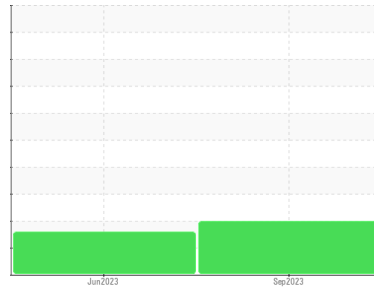


OIL ANALYSIS REPORT

Sample Rating Trend



SOOT



Machine Id
FREIGHTLINER 97
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (13 LTR)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Light concentration of carbon/soot present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0105008	PCA0100695	---
Sample Date	Client Info		28 Sep 2023	24 Jun 2023	---
Machine Age	mls	Client Info	398273	368639	---
Oil Age	mls	Client Info	30000	30755	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			ABNORMAL	ABNORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	35	34	---
Chromium	ppm	ASTM D5185m >5	2	2	---
Nickel	ppm	ASTM D5185m >2	<1	<1	---
Titanium	ppm	ASTM D5185m	<1	<1	---
Silver	ppm	ASTM D5185m >3	<1	0	---
Aluminum	ppm	ASTM D5185m >30	2	0	---
Lead	ppm	ASTM D5185m >30	24	16	---
Copper	ppm	ASTM D5185m >150	4	4	---
Tin	ppm	ASTM D5185m >5	2	2	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	<1	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<1	2	---
Barium	ppm	ASTM D5185m 0	0	<1	---
Molybdenum	ppm	ASTM D5185m 60	53	42	---
Manganese	ppm	ASTM D5185m 0	<1	<1	---
Magnesium	ppm	ASTM D5185m 1010	813	661	---
Calcium	ppm	ASTM D5185m 1070	1033	815	---
Phosphorus	ppm	ASTM D5185m 1150	788	678	---
Zinc	ppm	ASTM D5185m 1270	1069	848	---
Sulfur	ppm	ASTM D5185m 2060	2714	2467	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	6	4	---
Sodium	ppm	ASTM D5185m	0	2	---
Potassium	ppm	ASTM D5185m >20	7	4	---
Fuel	%	ASTM D3524 >5	▲ 6.9	▲ 6.5	---

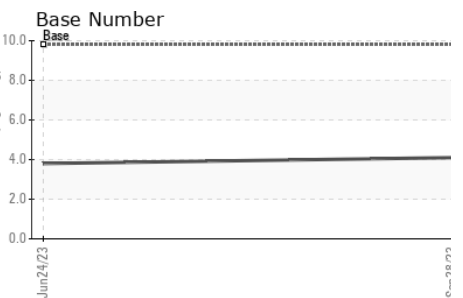
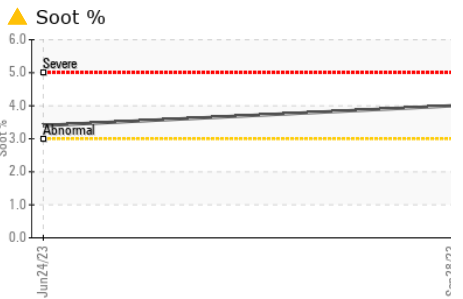
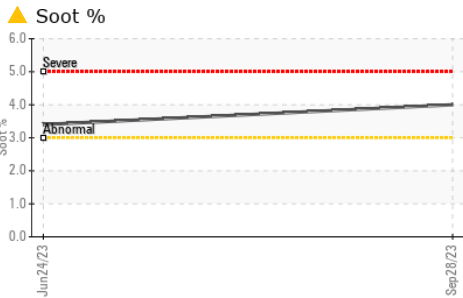
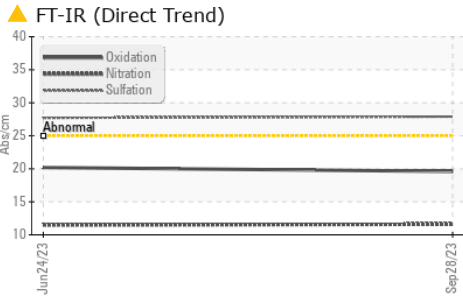
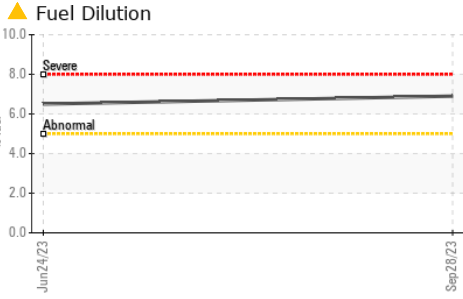
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	▲ 4	▲ 3.4	---
Nitration	Abs/cm	*ASTM D7624 >20	11.6	11.5	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	27.9	27.7	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.6	20.2	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	4.1	3.8	---

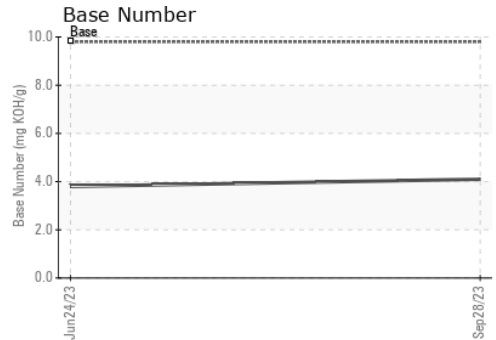
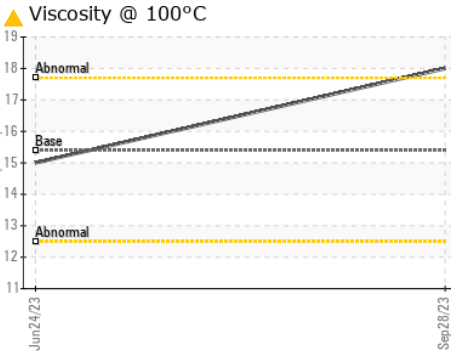
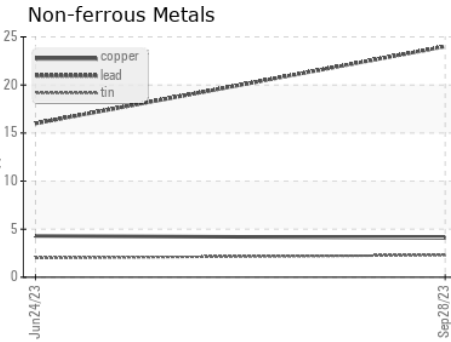
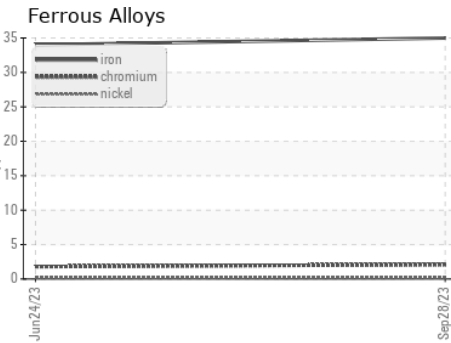
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 18.0	15.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0105008 **Received** : 23 May 2024
Lab Number : 06188597 **Tested** : 28 May 2024
Unique Number : 11045349 **Diagnosed** : 28 May 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

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

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)