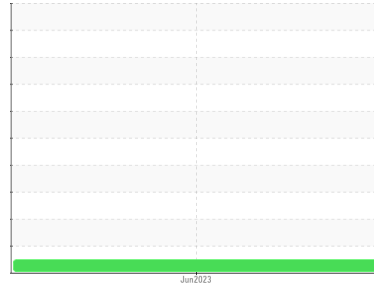


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

 Machine Id
FREIGHTLINER 020

 Component
Diesel Engine

 Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)
DIAGNOSIS
Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number	Client Info			PCA0097520	---	---
Sample Date	Client Info			24 Jun 2023	---	---
Machine Age	mls	Client Info		432000	---	---
Oil Age	mls	Client Info		0	---	---
Oil Changed	Client Info			Changed	---	---
Sample Status				NORMAL	---	---

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel	WC Method	>3.0		<1.0	---	---
Glycol	WC Method			NEG	---	---

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>200	64	---	---
Chromium	ppm	ASTM D5185m	>6	3	---	---
Nickel	ppm	ASTM D5185m	>3	0	---	---
Titanium	ppm	ASTM D5185m	>2	0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>50	44	---	---
Lead	ppm	ASTM D5185m	>10	<1	---	---
Copper	ppm	ASTM D5185m	>50	8	---	---
Tin	ppm	ASTM D5185m	>6	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

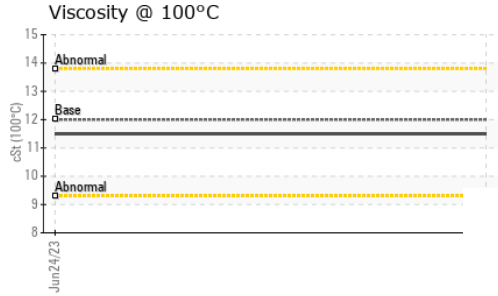
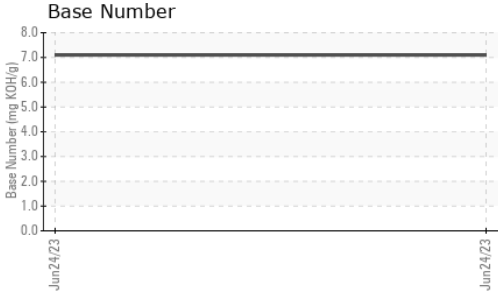
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	2	2	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	50	64	---	---
Manganese	ppm	ASTM D5185m	0	<1	---	---
Magnesium	ppm	ASTM D5185m	950	991	---	---
Calcium	ppm	ASTM D5185m	1050	1124	---	---
Phosphorus	ppm	ASTM D5185m	995	1066	---	---
Zinc	ppm	ASTM D5185m	1180	1307	---	---
Sulfur	ppm	ASTM D5185m	2600	2953	---	---

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>50	6	---	---
Sodium	ppm	ASTM D5185m		2	---	---
Potassium	ppm	ASTM D5185m	>20	76	---	---

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	0.4	---	---
Nitration	Abs/cm	*ASTM D7624	>20	10.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	---	---

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.1	---	---

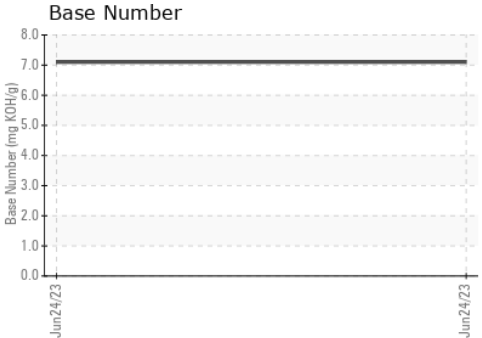
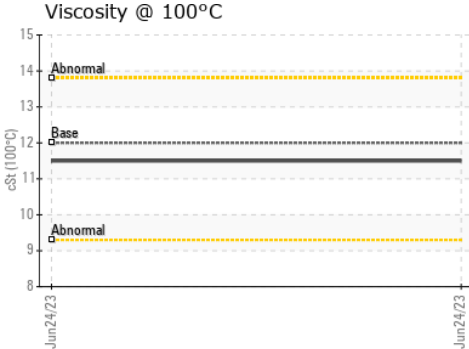
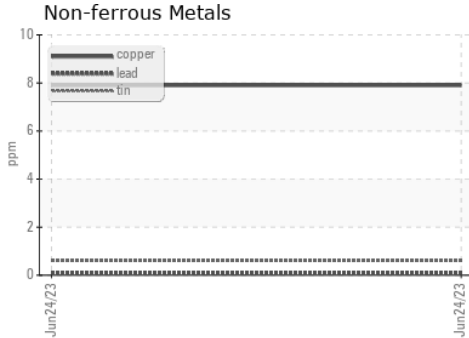
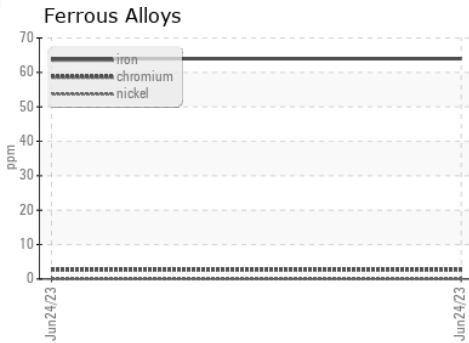
OIL ANALYSIS REPORT



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	12.00	11.5	---	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0097520 **Received** : 29 Jun 2023
Lab Number : **05887350** **Diagnosed** : 02 Jul 2023
Unique Number : 10537833 **Diagnostician** : Wes Davis
Test Package : FLEET

TVA REPAIR LLC
 13915 W ROUTE 30
 PLAINFIELD, IL
 US 60544

Contact: JOSHUA HUBBARD
 joshua@tvarepairllc.com
 T: (815)306-0330
 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)