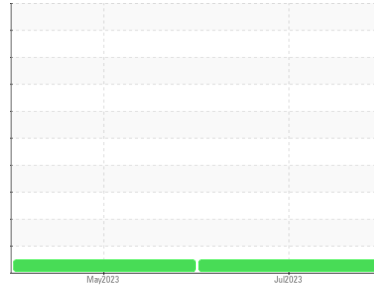


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
VOLVO VNL 165 (S/N 4V4NC9EJ1LN234484)

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

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	history1	history2
Sample Number	Client Info		PCA0097649	PCA0097485	---
Sample Date	Client Info		14 Jul 2023	25 May 2023	---
Machine Age	mls	Client Info	386000	361000	---
Oil Age	mls	Client Info	361000	0	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	<1.0	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	22	46	---
Chromium	ppm	ASTM D5185m >20	<1	<1	---
Nickel	ppm	ASTM D5185m >2	0	<1	---
Titanium	ppm	ASTM D5185m	<1	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >25	2	2	---
Lead	ppm	ASTM D5185m >40	<1	1	---
Copper	ppm	ASTM D5185m >330	2	3	---
Tin	ppm	ASTM D5185m >15	<1	<1	---
Vanadium	ppm	ASTM D5185m	<1	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	0	0	---
Barium	ppm	ASTM D5185m 0	0	2	---
Molybdenum	ppm	ASTM D5185m 50	64	99	---
Manganese	ppm	ASTM D5185m 0	<1	<1	---
Magnesium	ppm	ASTM D5185m 950	1042	1426	---
Calcium	ppm	ASTM D5185m 1050	1156	1625	---
Phosphorus	ppm	ASTM D5185m 995	1101	1604	---
Zinc	ppm	ASTM D5185m 1180	1322	1949	---
Sulfur	ppm	ASTM D5185m 2600	3403	4623	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	6	---
Sodium	ppm	ASTM D5185m	3	3	---
Potassium	ppm	ASTM D5185m >20	0	4	---

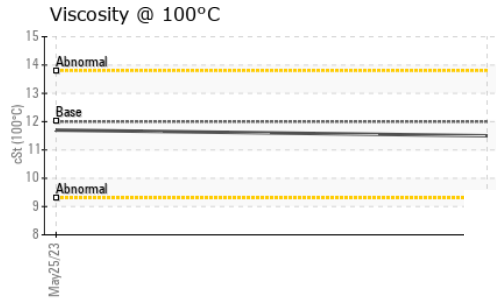
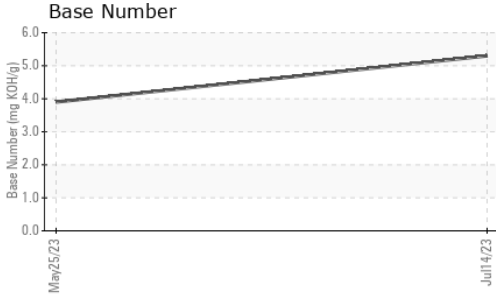
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.4	---
Nitration	Abs/cm	*ASTM D7624 >20	10.5	11.4	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.9	25.1	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.4	25.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	5.3	3.9	---

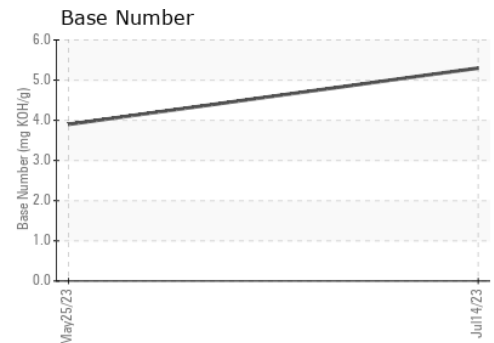
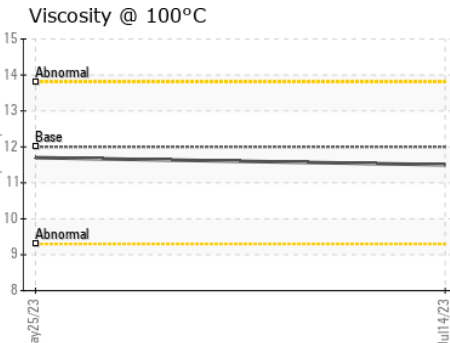
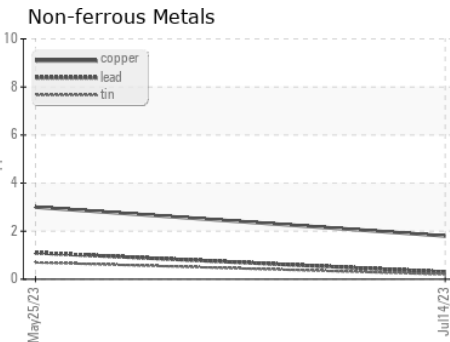
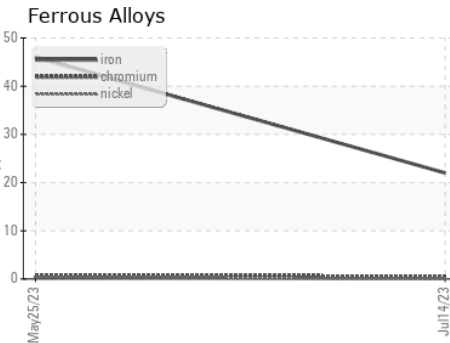
OIL ANALYSIS REPORT



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	12.00	11.5	11.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0097649 **Received** : 24 Jul 2023
Lab Number : 05905106 **Diagnosed** : 24 Jul 2023
Unique Number : 10566462 **Diagnostician** : Wes Davis
Test Package : FLEET

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)

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

Contact: JOSHUA HUBBARD
 joshua@tvarepairllc.com

T: (815)306-0330

F: