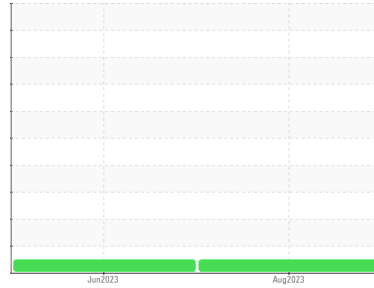


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
VOLVO VNL 145 (S/N 4V4NC9EH2NN304378)

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			PCA0097414	PCA0097512	---
Sample Date	Client Info			24 Aug 2023	24 Jun 2023	---
Machine Age	mls	Client Info		296000	266000	---
Oil Age	mls	Client Info		30000	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	27	15	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>25	7	2	---
Lead	ppm	ASTM D5185m	>40	<1	<1	---
Copper	ppm	ASTM D5185m	>330	4	3	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

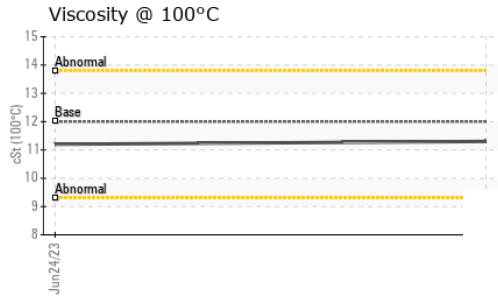
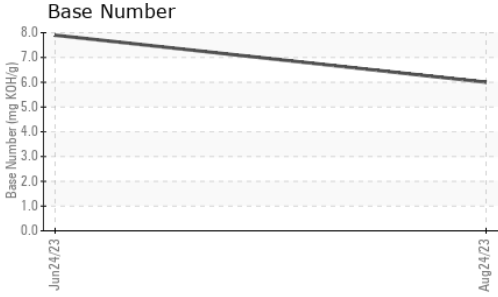
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	0	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	50	65	65	---
Manganese	ppm	ASTM D5185m	0	<1	<1	---
Magnesium	ppm	ASTM D5185m	950	990	973	---
Calcium	ppm	ASTM D5185m	1050	1116	1102	---
Phosphorus	ppm	ASTM D5185m	995	1031	1068	---
Zinc	ppm	ASTM D5185m	1180	1290	1309	---
Sulfur	ppm	ASTM D5185m	2600	3204	3480	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	4	---
Sodium	ppm	ASTM D5185m		4	6	---
Potassium	ppm	ASTM D5185m	>20	14	32	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	10.0	9.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	20.5	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.5	16.9	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.0	7.9	---

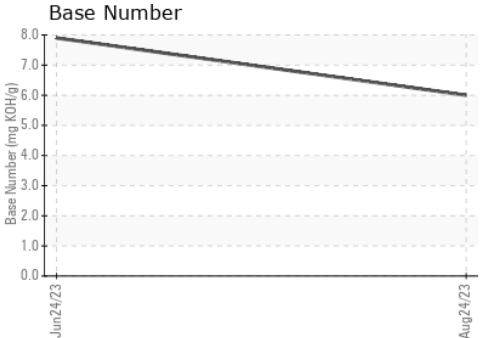
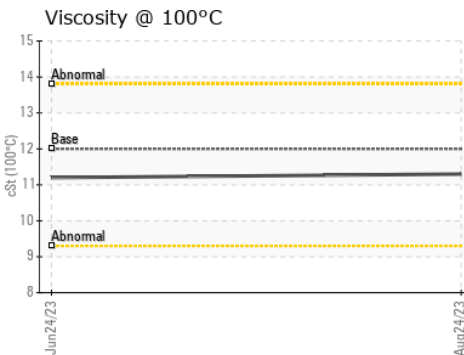
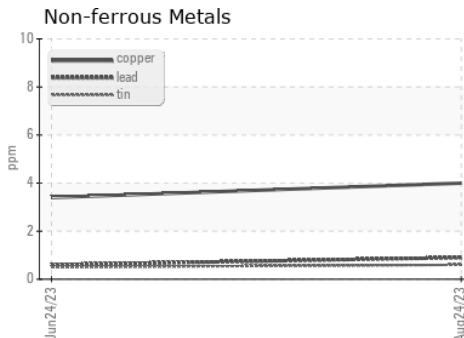
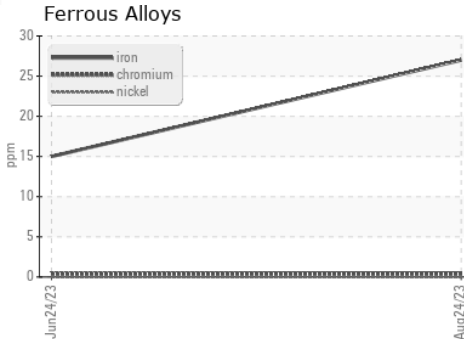
OIL ANALYSIS REPORT



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	11.3	11.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0097414 **Received** : 06 Oct 2023
Lab Number : **05971994** **Diagnosed** : 09 Oct 2023
Unique Number : 10683944 **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)