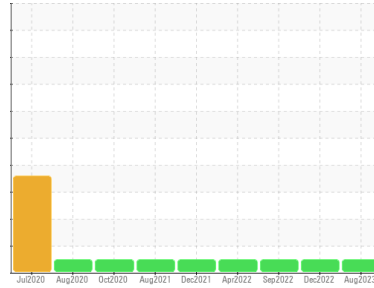


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
VOLVO VNR 2026787 (S/N 4V4WC9EH3LN270128)

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

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		PCA0094592	PCA0052363	PCA0052367
Sample Date	Client Info		24 Aug 2023	16 Dec 2022	05 Sep 2022
Machine Age	mls	Client Info	308000	249112	223787
Oil Age	mls	Client Info	28330	25325	37204
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	19	20	28
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >2	<1	0	<1
Aluminum	ppm	ASTM D5185m >25	2	<1	4
Lead	ppm	ASTM D5185m >40	<1	1	2
Copper	ppm	ASTM D5185m >330	4	7	10
Tin	ppm	ASTM D5185m >15	<1	<1	1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	12	0	1
Barium	ppm	ASTM D5185m 0	0	0	2
Molybdenum	ppm	ASTM D5185m 50	44	60	59
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 950	617	872	853
Calcium	ppm	ASTM D5185m 1050	1636	1071	1025
Phosphorus	ppm	ASTM D5185m 995	789	953	894
Zinc	ppm	ASTM D5185m 1180	990	1148	1148
Sulfur	ppm	ASTM D5185m 2600	2935	2502	2282

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	4	4
Sodium	ppm	ASTM D5185m	4	8	11
Potassium	ppm	ASTM D5185m >20	2	4	7

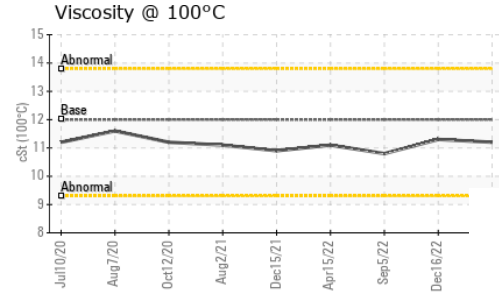
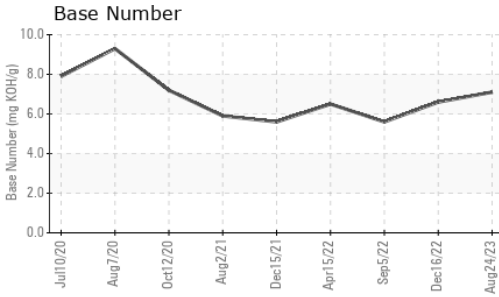
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.5	0.6
Nitration	Abs/cm	*ASTM D7624 >20	10.2	10.0	11.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.8	20.8	24.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.0	17.3	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	7.1	6.6	5.6

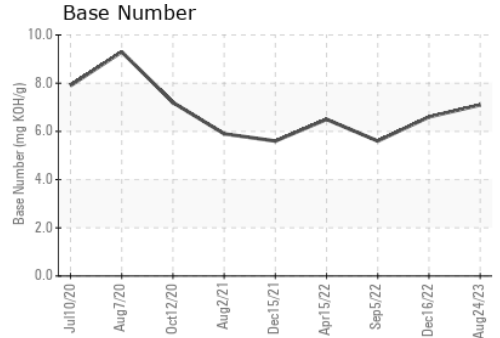
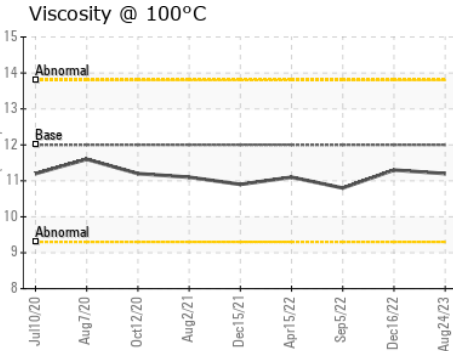
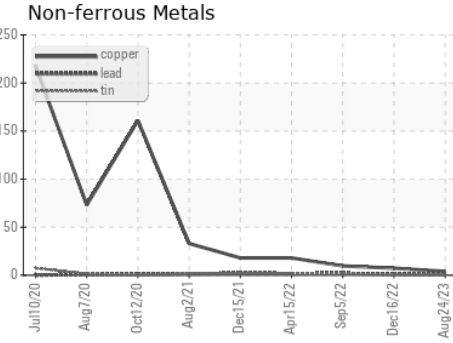
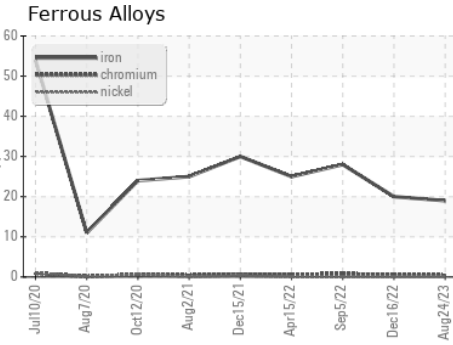
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.2	11.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0094592 **Received** : 05 Sep 2023
Lab Number : 05942852 **Diagnosed** : 08 Sep 2023
Unique Number : 10633464 **Diagnostician** : Sean Felton
Test Package : FLEET

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 WASHINGTON, IN
 US 47501
 Contact: DEREK RYAN
 derek.ryan@perdue.com
 T: (812)257-3023
 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)