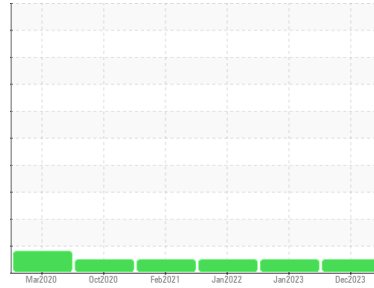


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
FREIGHTLINER 308957

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		PCA0098962	PCA0070907	PCA0064733
Sample Date	Client Info		07 Dec 2023	24 Jan 2023	11 Jan 2022
Machine Age	mls	Client Info	172840	143384	105684
Oil Age	mls	Client Info	0	0	36760
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>200	33	83	44
Chromium	ppm	ASTM D5185m	>20	1	2	1
Nickel	ppm	ASTM D5185m	>2	<1	1	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	0	<1
Aluminum	ppm	ASTM D5185m	>30	10	23	18
Lead	ppm	ASTM D5185m	>30	2	1	<1
Copper	ppm	ASTM D5185m	>30	4	6	4
Tin	ppm	ASTM D5185m	>15	2	3	2
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	2	7	1	3
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	50	57	64	69
Manganese	ppm	ASTM D5185m	0	1	1	<1
Magnesium	ppm	ASTM D5185m	950	805	892	983
Calcium	ppm	ASTM D5185m	1050	1077	1112	1113
Phosphorus	ppm	ASTM D5185m	995	892	914	984
Zinc	ppm	ASTM D5185m	1180	1040	1177	1256
Sulfur	ppm	ASTM D5185m	2600	3156	3044	2559

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>30	4	8	5
Sodium	ppm	ASTM D5185m		4	4	<1
Potassium	ppm	ASTM D5185m	>20	7	12	17

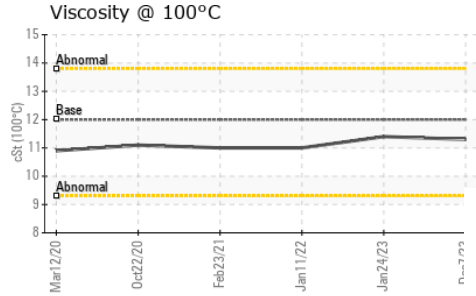
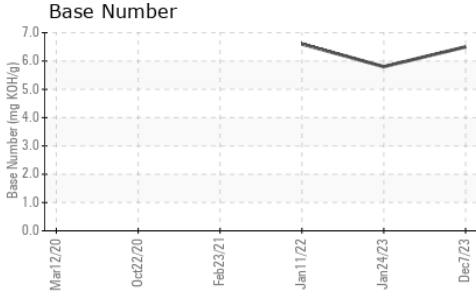
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.9	1.3	1
Nitration	Abs/cm	*ASTM D7624	>20	12.7	14.9	13.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.5	27.3	26.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.8	25.2	23.0
Base Number (BN)	mg KOH/g	ASTM D2896		6.5	5.8	6.6

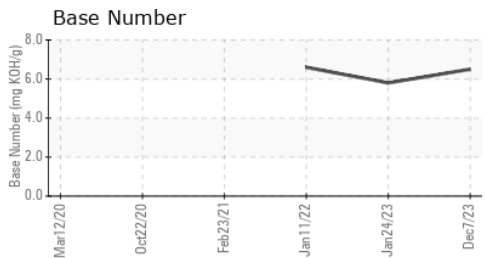
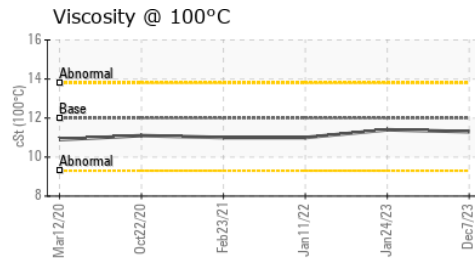
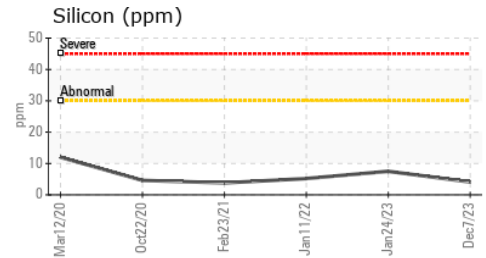
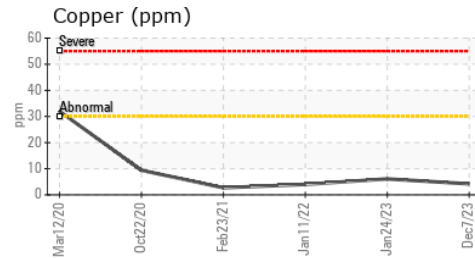
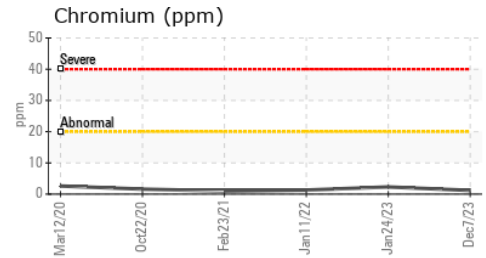
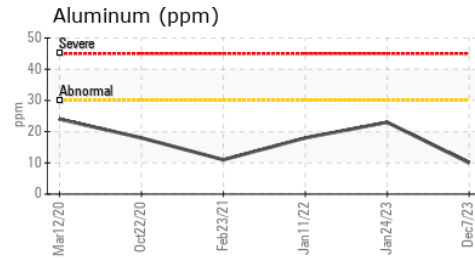
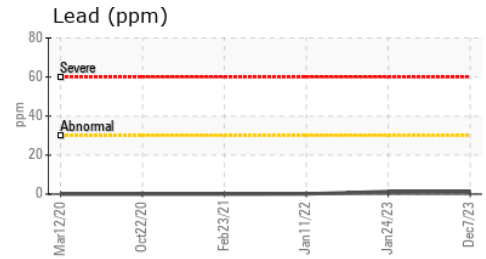
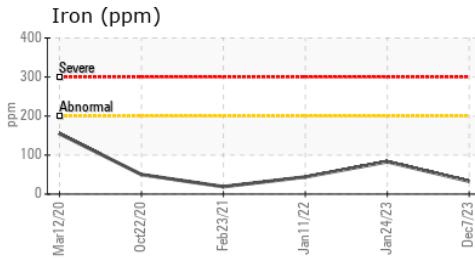
OIL ANALYSIS REPORT



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	11.3	11.4	11.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0098962 **Received** : 14 Mar 2024
Lab Number : **06118085** **Tested** : 15 Mar 2024
Unique Number : 10926918 **Diagnosed** : 15 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

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 CINNAMINSON, NJ
 US 08077
 Contact: MIKE BOYER
 mboyer@millertransgroup.com
 T: (856)662-4264
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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)