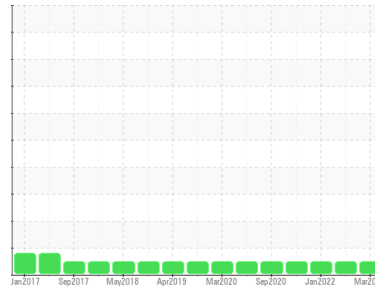


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
FREIGHTLINER 679544
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (38 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		PCA0110673	PCA0071767	PCA0053411
Sample Date	Client Info		23 Mar 2024	08 Aug 2022	23 Jan 2022
Machine Age	mls	Client Info	300989	239521	214429
Oil Age	mls	Client Info	28730	35912	10820
Oil Changed	Client Info		Changed	Changed	Not 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 >65	22	36	18
Chromium	ppm	ASTM D5185m >5	<1	1	1
Nickel	ppm	ASTM D5185m >3	0	0	0
Titanium	ppm	ASTM D5185m >5	11	2	<1
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >35	11	12	6
Lead	ppm	ASTM D5185m >10	0	0	<1
Copper	ppm	ASTM D5185m >180	3	10	9
Tin	ppm	ASTM D5185m >8	<1	1	1
Antimony	ppm	ASTM D5185m >35	---	---	<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	3	10	15
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 50	55	56	57
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 950	940	872	937
Calcium	ppm	ASTM D5185m 1050	1259	1096	1135
Phosphorus	ppm	ASTM D5185m 995	1093	857	942
Zinc	ppm	ASTM D5185m 1180	1288	1104	1066
Sulfur	ppm	ASTM D5185m 2600	3498	2346	2156

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	5	4	4
Sodium	ppm	ASTM D5185m	3	3	0
Potassium	ppm	ASTM D5185m >20	3	2	3

INFRA-RED

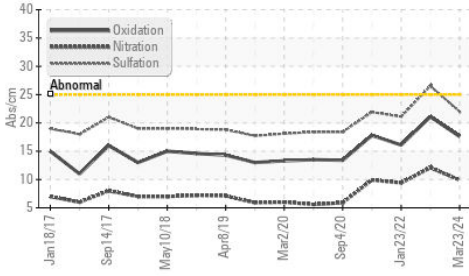
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.8	1.3	0.6
Nitration	Abs/cm	*ASTM D7624 >20	9.9	12.1	9.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.0	26.5	21.1

FLUID DEGRADATION

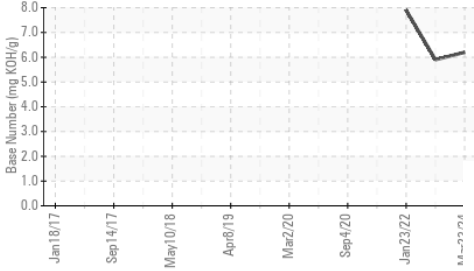
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.6	21.1	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	6.2	5.9	7.9

OIL ANALYSIS REPORT

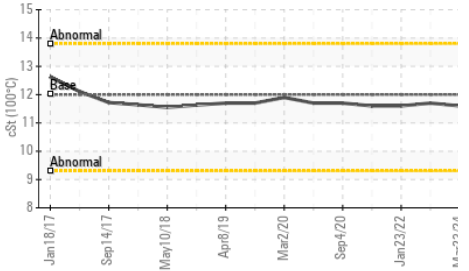
FT-IR (Direct Trend)



Base Number



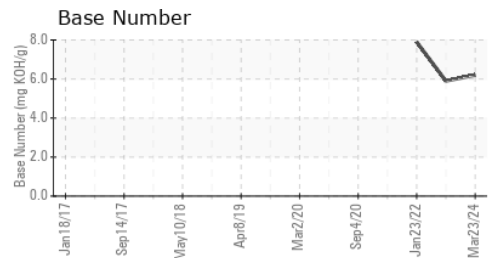
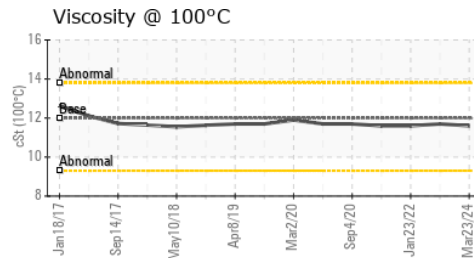
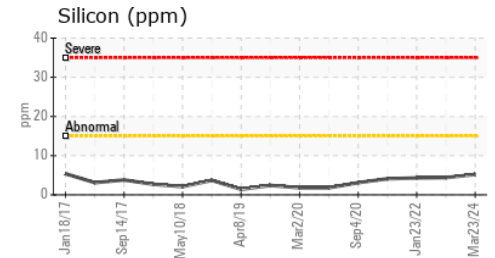
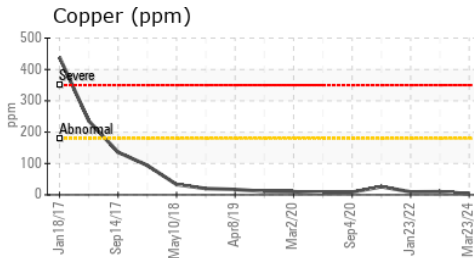
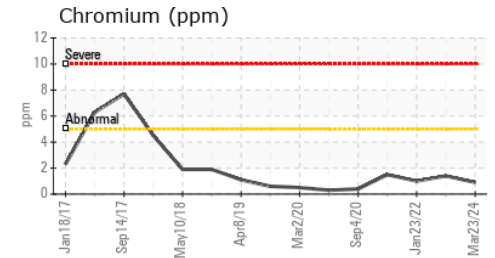
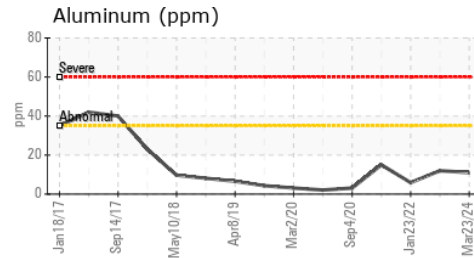
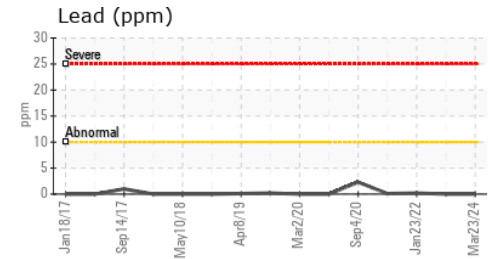
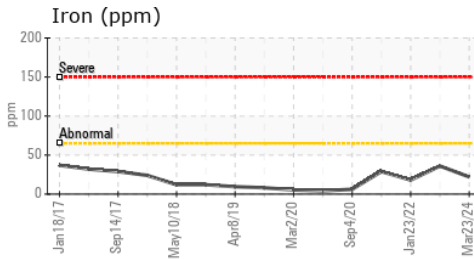
Viscosity @ 100°C



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	11.6	11.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0110673
Lab Number : 06140809
Unique Number : 10965617
Test Package : MOB 1 (Additional Tests: TBN)
Received : 08 Apr 2024
Tested : 08 Apr 2024
Diagnosed : 08 Apr 2024 - Wes Davis

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 LANCASTER, PA
 US 17601
 Contact: RON ROBERTS
 roberts@millertransgroup.com
 T: (717)945-6205
 F: (717)945-5818

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)