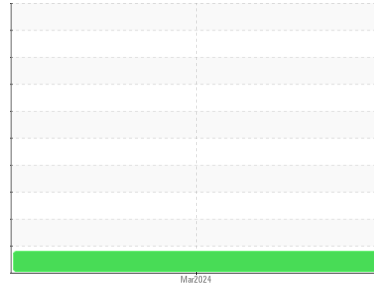


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
735464
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Cylinder, crank, or cam shaft wear is indicated.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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 acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0079278	---	---
Sample Date	Client Info	14 Mar 2024	---	---
Machine Age	mls Client Info	105924	---	---
Oil Age	mls Client Info	105924	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	---	---
Water	WC Method >0.2	NEG	---	---
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	▲ 142	---	---
Chromium	ppm ASTM D5185m >20	6	---	---
Nickel	ppm ASTM D5185m >4	<1	---	---
Titanium	ppm ASTM D5185m	<1	---	---
Silver	ppm ASTM D5185m >3	0	---	---
Aluminum	ppm ASTM D5185m >20	174	---	---
Lead	ppm ASTM D5185m >40	0	---	---
Copper	ppm ASTM D5185m >330	166	---	---
Tin	ppm ASTM D5185m >15	6	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	23	---	---
Barium	ppm ASTM D5185m 0	<1	---	---
Molybdenum	ppm ASTM D5185m 50	46	---	---
Manganese	ppm ASTM D5185m 0	5	---	---
Magnesium	ppm ASTM D5185m 950	596	---	---
Calcium	ppm ASTM D5185m 1050	1914	---	---
Phosphorus	ppm ASTM D5185m 995	808	---	---
Zinc	ppm ASTM D5185m 1180	1003	---	---
Sulfur	ppm ASTM D5185m 2600	2199	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	14	---	---
Sodium	ppm ASTM D5185m	8	---	---
Potassium	ppm ASTM D5185m >20	377	---	---

INFRA-RED

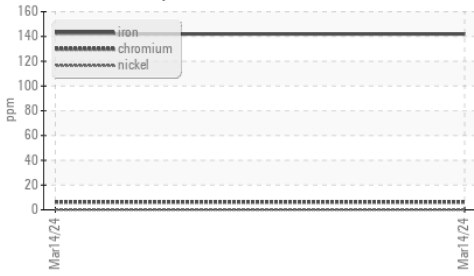
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	1.8	---	---
Nitration	Abs/cm *ASTM D7624 >20	16.0	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	28.1	---	---

FLUID DEGRADATION

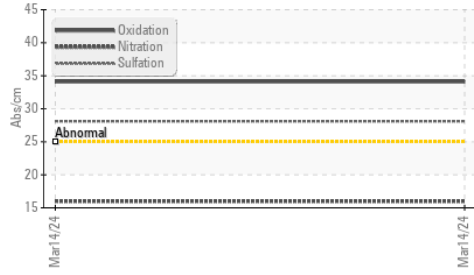
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	34.1	---	---
Base Number (BN)	mg KOH/g ASTM D2896	4.7	---	---

OIL ANALYSIS REPORT

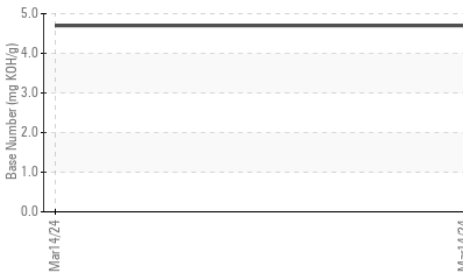
▲ Ferrous Alloys



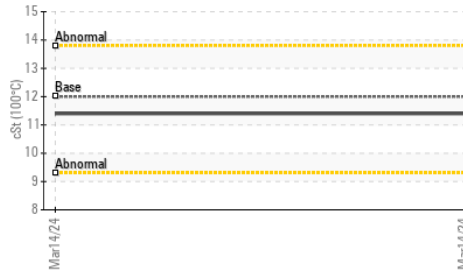
FT-IR (Direct Trend)



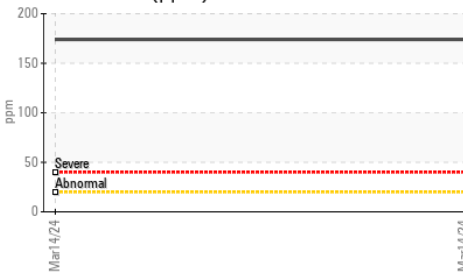
Base Number



Viscosity @ 100°C



Aluminum (ppm)

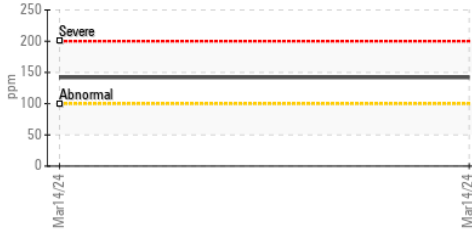


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

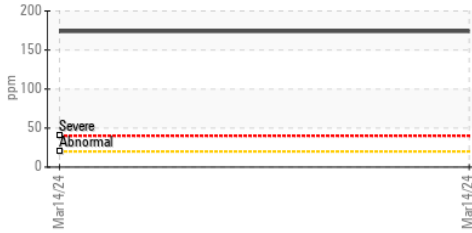
PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.4	---

GRAPHS

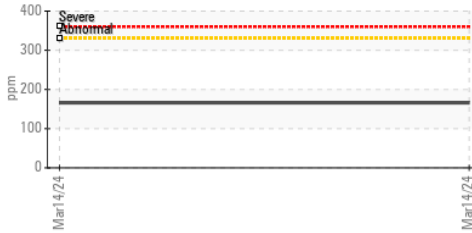
▲ Iron (ppm)



Aluminum (ppm)



Copper (ppm)



Viscosity @ 100°C



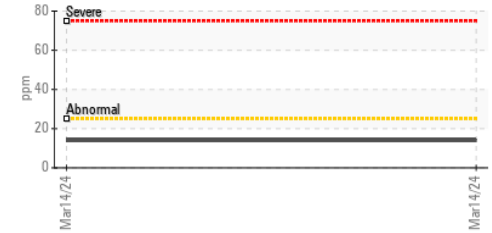
Lead (ppm)



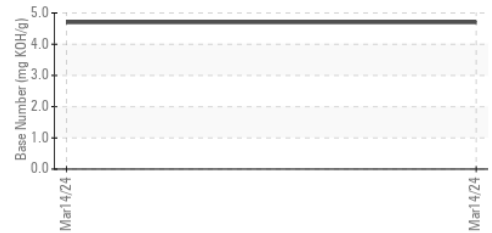
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : PCA0079278

Lab Number : 06147088

Unique Number : 10977166

Test Package : MOB 1 (Additional Tests: TBN)

Received : 12 Apr 2024

Tested : 15 Apr 2024

Diagnosed : 15 Apr 2024 - Sean Felton

MILLER TRUCK LEASING #121

107 HOW LANE

NEW BRUNSWICK, NJ

US 08901

Contact: Anthony Cursi

acursi@millertransgroup.com

T: (732)358-4027

F: (732)400-8475

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)