

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
5119
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The copper level is abnormal. Cylinder, crank, or cam shaft wear is indicated. Elemental level of copper (Cu) probably due to leaching of copper from copper components (i.e. cooling core) by the oil additives.

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		PCA0120637	---	---
Sample Date	Client Info		05 Mar 2024	---	---
Machine Age	mls	Client Info	0	---	---
Oil Age	mls	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	▲ 124	---	---
Chromium	ppm	ASTM D5185m >20	3	---	---
Nickel	ppm	ASTM D5185m >4	<1	---	---
Titanium	ppm	ASTM D5185m	0	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >20	19	---	---
Lead	ppm	ASTM D5185m >40	4	---	---
Copper	ppm	ASTM D5185m >330	▲ 370	---	---
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	16	---	---
Barium	ppm	ASTM D5185m 0	<1	---	---
Molybdenum	ppm	ASTM D5185m 50	100	---	---
Manganese	ppm	ASTM D5185m 0	2	---	---
Magnesium	ppm	ASTM D5185m 950	1354	---	---
Calcium	ppm	ASTM D5185m 1050	1770	---	---
Phosphorus	ppm	ASTM D5185m 995	1470	---	---
Zinc	ppm	ASTM D5185m 1180	1950	---	---
Sulfur	ppm	ASTM D5185m 2600	4002	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	24	---	---
Sodium	ppm	ASTM D5185m	4	---	---
Potassium	ppm	ASTM D5185m >20	5	---	---
Glycol	%	*ASTM D2982	NEG	---	---

INFRA-RED

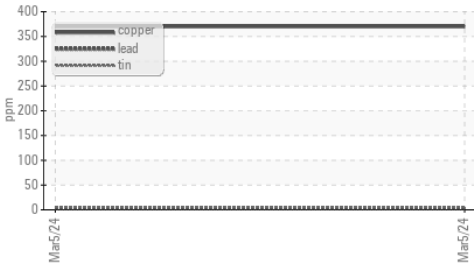
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	1	---	---
Nitration	Abs/cm	*ASTM D7624 >20	12.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.9	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	7.0	---	---

OIL ANALYSIS REPORT

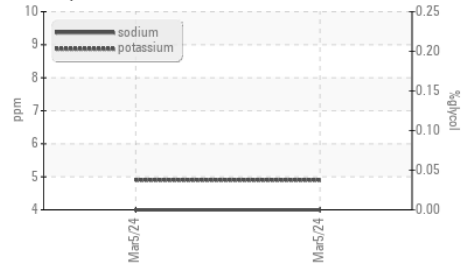
▲ Non-ferrous Metals



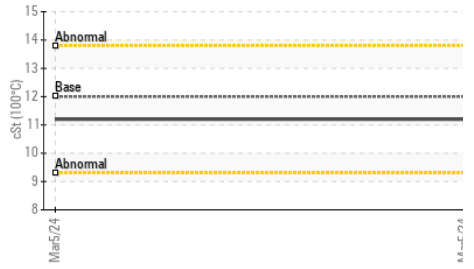
▲ Ferrous Alloys



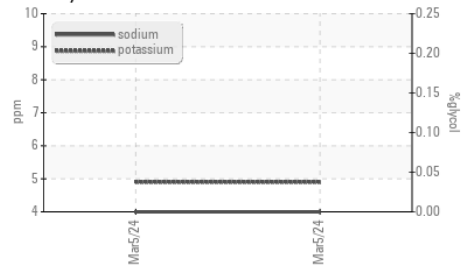
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

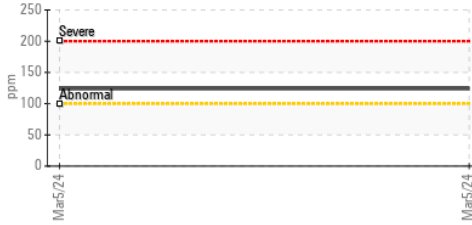


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	11.2	---

GRAPHS

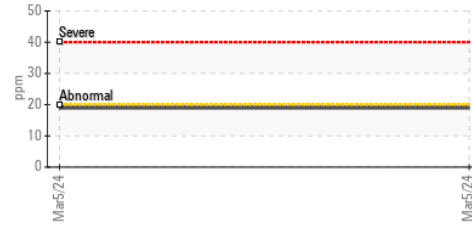
▲ Iron (ppm)



Lead (ppm)



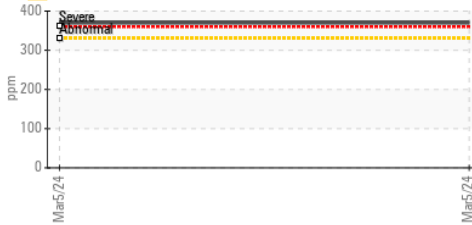
Aluminum (ppm)



Chromium (ppm)



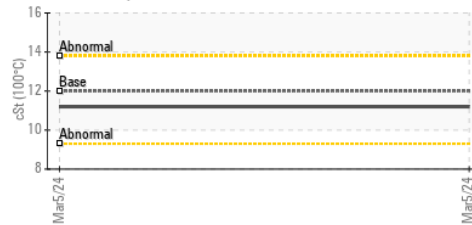
▲ Copper (ppm)



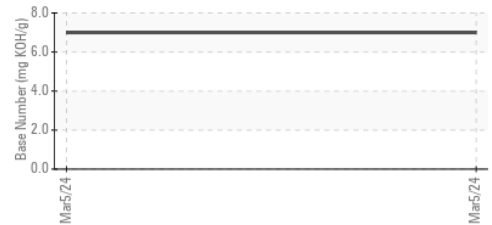
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0120637
Lab Number : 06116698
Unique Number : 10925531
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

Received : 13 Mar 2024
Tested : 14 Mar 2024
Diagnosed : 14 Mar 2024 - Don Baldrige

MILLER TRUCK LEASING #119
 39 INDUSTRIAL AVE
 HASBROUCK HEIGHTS, NJ
 US 07604
 Contact: MIKE LONGETTE
 mlongette@millertransgroup.com

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)

F: (201)528-7053