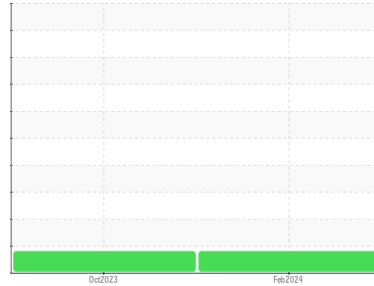


Machine Id  
**631683**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**



**DIAGNOSIS**

**Recommendation**  
 Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**  
 The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

**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 acceptable for the time in service.

**SAMPLE INFORMATION**

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PCA0118984</b>	PCA0108379	---
Sample Date	Client Info		<b>27 Feb 2024</b>	20 Oct 2023	---
Machine Age	mls	Client Info	<b>42114</b>	14048	---
Oil Age	mls	Client Info	<b>42114</b>	14048	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

**CONTAMINATION**

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

**WEAR METALS**

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>101</b>	63
Chromium	ppm	ASTM D5185m	>20	<b>4</b>	3
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0
Aluminum	ppm	ASTM D5185m	>20	<b>40</b>	39
Lead	ppm	ASTM D5185m	>40	<b>0</b>	3
Copper	ppm	ASTM D5185m	>330	<b>374</b>	397
Tin	ppm	ASTM D5185m	>15	<b>6</b>	5
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0

**ADDITIVES**

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<b>21</b>	26
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0
Molybdenum	ppm	ASTM D5185m	50	<b>47</b>	46
Manganese	ppm	ASTM D5185m	0	<b>5</b>	4
Magnesium	ppm	ASTM D5185m	950	<b>656</b>	547
Calcium	ppm	ASTM D5185m	1050	<b>1719</b>	1596
Phosphorus	ppm	ASTM D5185m	995	<b>893</b>	692
Zinc	ppm	ASTM D5185m	1180	<b>1083</b>	953
Sulfur	ppm	ASTM D5185m	2600	<b>1946</b>	1578

**CONTAMINANTS**

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	7
Sodium	ppm	ASTM D5185m		<b>7</b>	7
Potassium	ppm	ASTM D5185m	>20	<b>124</b>	112

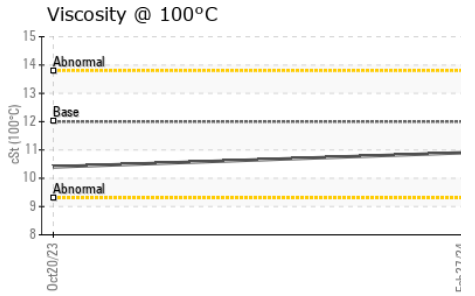
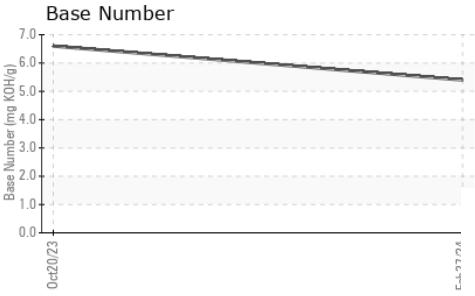
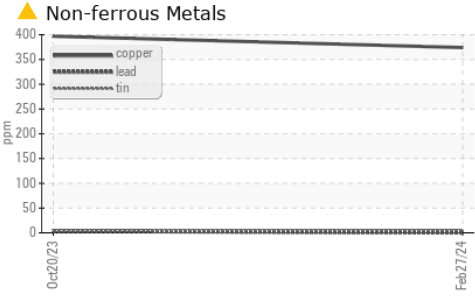
**INFRA-RED**

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>1.5</b>	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.2</b>	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.5</b>	23.6

**FLUID DEGRADATION**

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>30.8</b>	25.6
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.4</b>	6.6

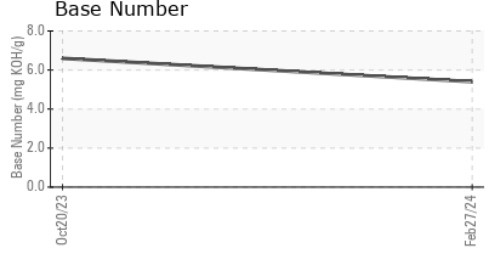
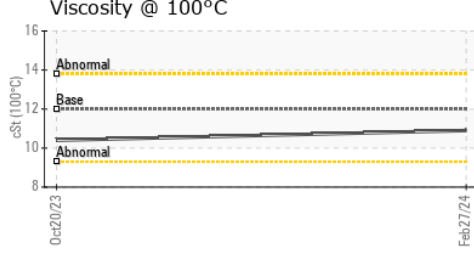
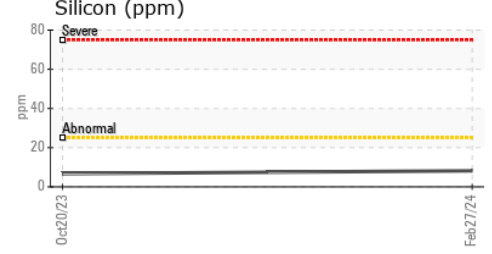
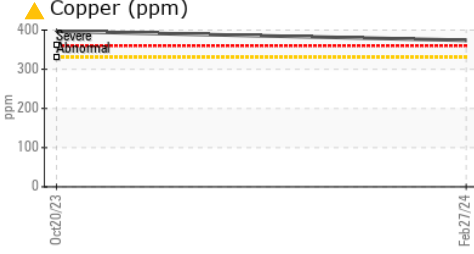
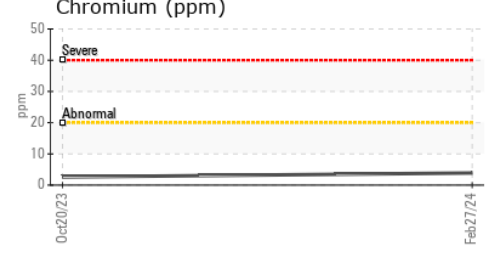
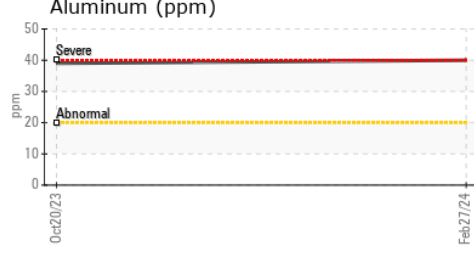
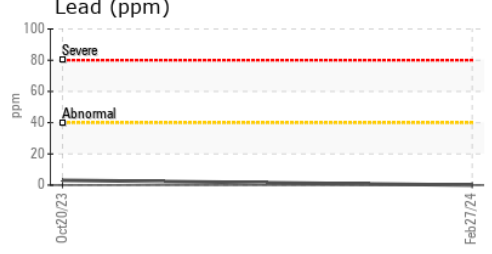
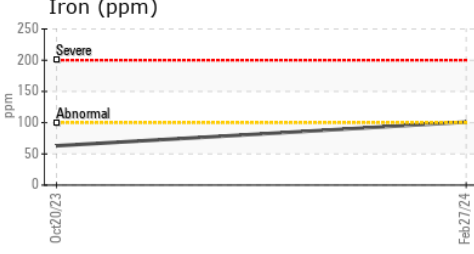
# OIL ANALYSIS REPORT



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	10.9	10.4

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0118984      **Received** : 04 Mar 2024  
**Lab Number** : 06107098      **Tested** : 04 Mar 2024  
**Unique Number** : 10910595      **Diagnosed** : 06 Mar 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MILLER TRUCK LEASING #118**  
 2196 BENNETT ROAD  
 PHILADELPHIA, PA  
 US 19116  
 Contact: ROSTY VITER  
 rviter@millertransgroup.com  
 T: (215)552-9832  
 F: (215)552-9892

*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)*