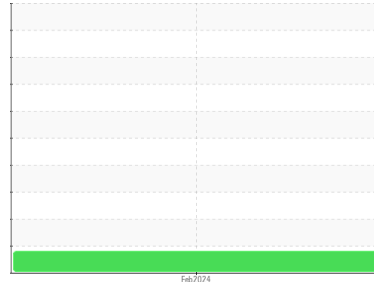


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
(65228Z) Walgreens - Tractor
 Machine Id
[Walgreens - Tractor] 136A624203
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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). All other metal levels are typical for a new component breaking in.

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. No other contaminants were detected 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	PCA0106583	---	---
Sample Date	Client Info	13 Feb 2024	---	---
Machine Age	mls Client Info	62617	---	---
Oil Age	mls Client Info	62617	---	---
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 >80	74	---	---
Chromium	ppm ASTM D5185m >5	6	---	---
Nickel	ppm ASTM D5185m >2	1	---	---
Titanium	ppm ASTM D5185m	0	---	---
Silver	ppm ASTM D5185m >3	0	---	---
Aluminum	ppm ASTM D5185m >30	159	---	---
Lead	ppm ASTM D5185m >30	3	---	---
Copper	ppm ASTM D5185m >150	▲ 211	---	---
Tin	ppm ASTM D5185m >5	6	---	---
Vanadium	ppm ASTM D5185m	<1	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	28	---	---
Barium	ppm ASTM D5185m 0	0	---	---
Molybdenum	ppm ASTM D5185m 50	41	---	---
Manganese	ppm ASTM D5185m 0	5	---	---
Magnesium	ppm ASTM D5185m 950	628	---	---
Calcium	ppm ASTM D5185m 1050	1735	---	---
Phosphorus	ppm ASTM D5185m 995	763	---	---
Zinc	ppm ASTM D5185m 1180	935	---	---
Sulfur	ppm ASTM D5185m 2600	1794	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	8	---	---
Sodium	ppm ASTM D5185m	8	---	---
Potassium	ppm ASTM D5185m >20	352	---	---

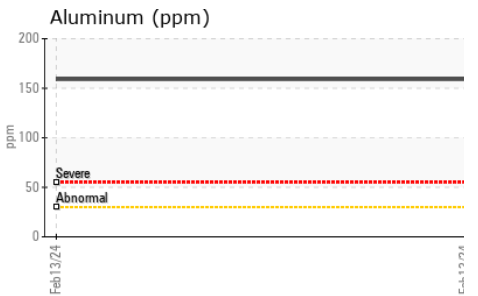
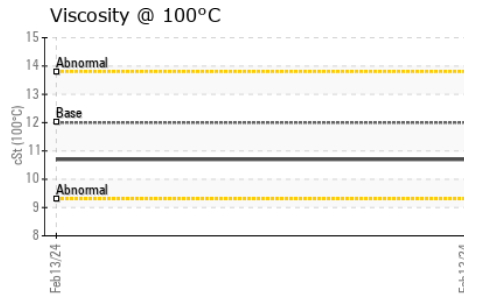
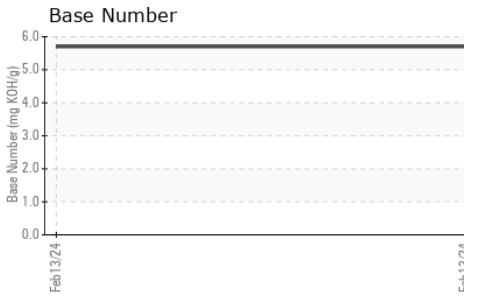
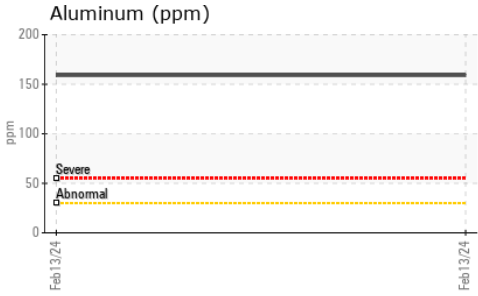
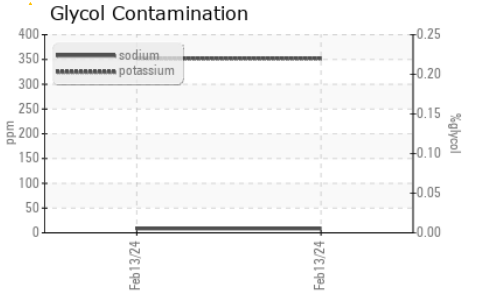
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.7	---	---
Nitration	Abs/cm *ASTM D7624 >20	11.0	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	23.3	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	25.7	---	---
Base Number (BN)	mg KOH/g ASTM D2896	5.7	---	---

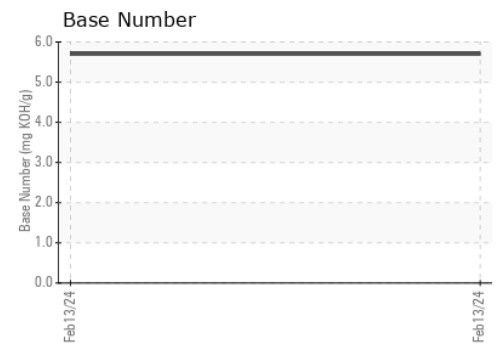
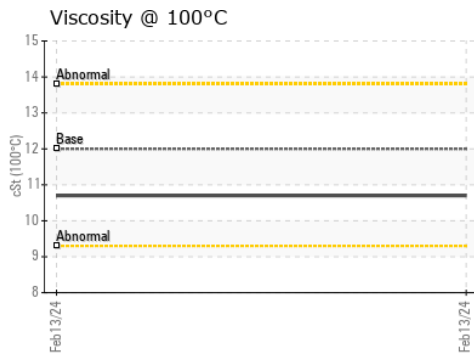
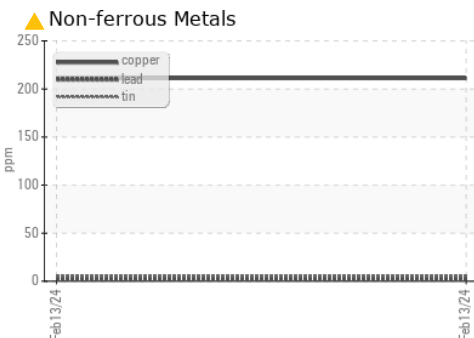
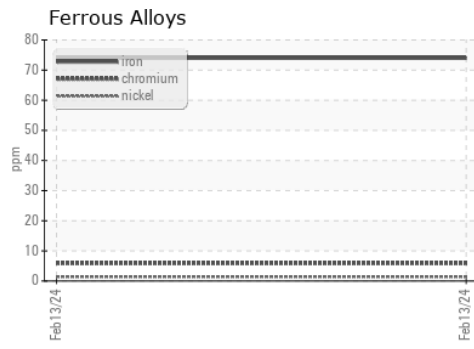
OIL ANALYSIS REPORT



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	10.7	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0106583
Lab Number : 06100706
Unique Number : 10898936
Test Package : FLEET

Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 28 Feb 2024 - Don Baldrige

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 Waxahachie, TX
 US 75167
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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)