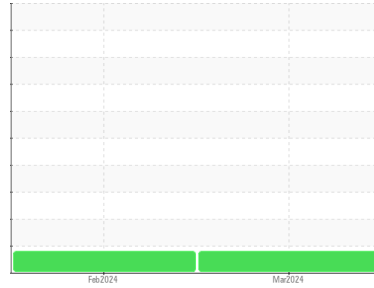


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
(65643Z) Walgreens - Tractor
 Machine Id
[Walgreens - Tractor] 136A624197
 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. Note that there appears to be a discrepancy in the total time on this component, when compared to the historical data.

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		PCA0106572	PCA0103569	---
Sample Date	Client Info		05 Mar 2024	06 Feb 2024	---
Machine Age	mls	Client Info	52061	63226	---
Oil Age	mls	Client Info	50000	63226	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			ABNORMAL	ABNORMAL	---

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

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	63	74	---
Chromium	ppm	ASTM D5185m >5	5	6	---
Nickel	ppm	ASTM D5185m >2	2	2	---
Titanium	ppm	ASTM D5185m	<1	0	---
Silver	ppm	ASTM D5185m >3	0	0	---
Aluminum	ppm	ASTM D5185m >30	57	201	---
Lead	ppm	ASTM D5185m >30	1	3	---
Copper	ppm	ASTM D5185m >150	▲ 142	▲ 199	---
Tin	ppm	ASTM D5185m >5	7	8	---
Vanadium	ppm	ASTM D5185m	<1	<1	---
Cadmium	ppm	ASTM D5185m	0	0	---

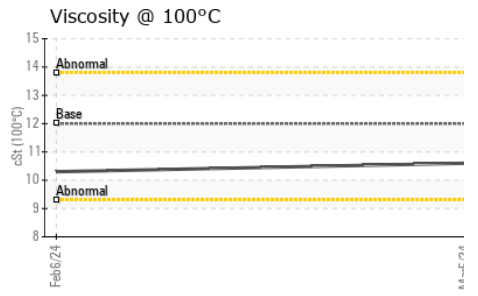
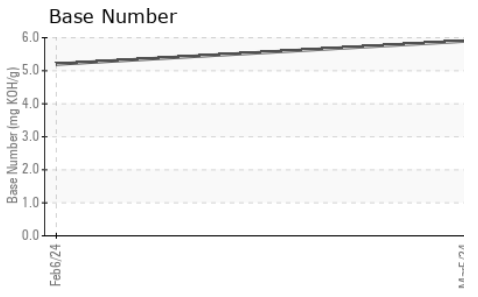
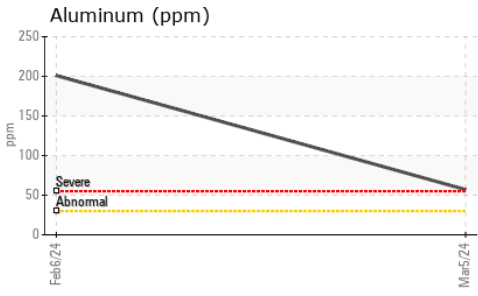
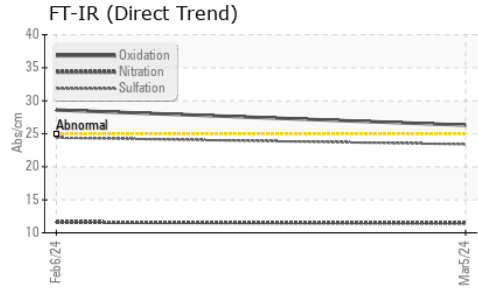
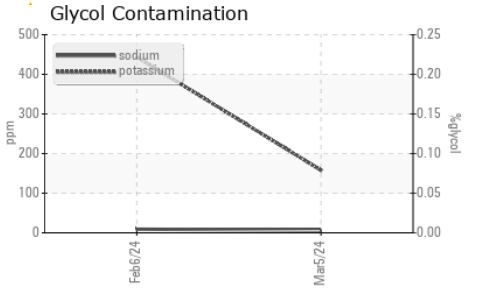
ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	31	27	---
Barium	ppm	ASTM D5185m 0	<1	<1	---
Molybdenum	ppm	ASTM D5185m 50	39	44	---
Manganese	ppm	ASTM D5185m 0	5	5	---
Magnesium	ppm	ASTM D5185m 950	559	559	---
Calcium	ppm	ASTM D5185m 1050	1804	1797	---
Phosphorus	ppm	ASTM D5185m 995	753	734	---
Zinc	ppm	ASTM D5185m 1180	879	913	---
Sulfur	ppm	ASTM D5185m 2600	2261	1680	---

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	8	9	---
Sodium	ppm	ASTM D5185m	7	9	---
Potassium	ppm	ASTM D5185m >20	158	444	---

INFRA-RED	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.8	0.7	---
Nitration	Abs/cm	*ASTM D7624 >20	11.5	11.6	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.4	24.4	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	26.3	28.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	5.9	5.2	---

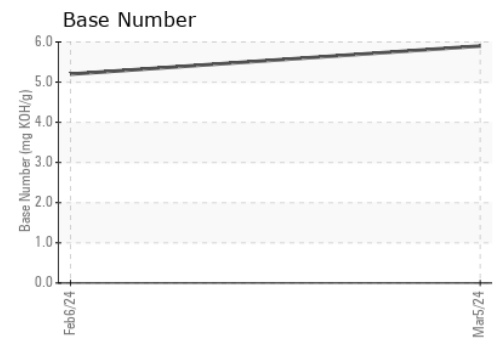
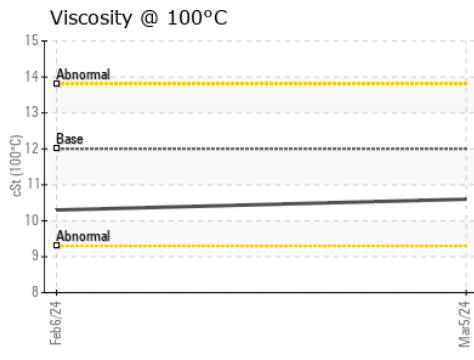
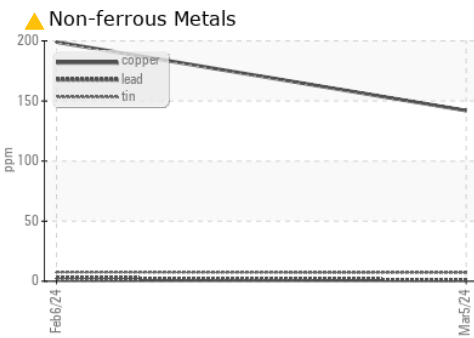
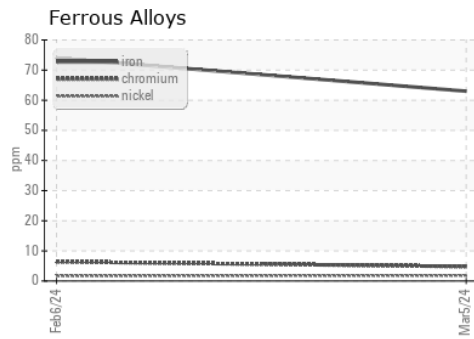
OIL ANALYSIS REPORT



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	10.6	10.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0106572
Lab Number : 06142008
Unique Number : 10966816
Test Package : FLEET

Received : 08 Apr 2024
Tested : 09 Apr 2024
Diagnosed : 10 Apr 2024 - Don Baldrige

Transervice - Shop 1369 - Berkeley-Waxahachie
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 Waxahachie, TX
 US 75167
 Contact: Robert Beal
 rbeal@transervice.com
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 F: (972)923-9919

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)