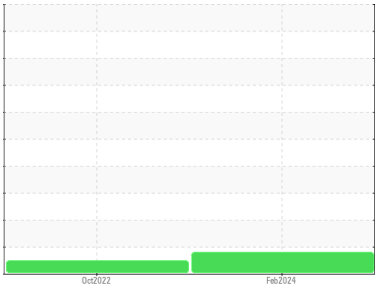
OIL ANALYSIS REPORT

Machine Id
831052
Component
Transmission (Auto)
Fluid
PETRO CANADA DuraDrive HD Synthetic 668 (--- GAL)

Sample Rating Trend



WEAR

DIAGNOSIS

Recommendation
The fluid change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
Copper ppm levels are abnormal. Clutch disc wear or oil cooler leaching indicated.

Contamination
There is no indication of any contamination in the fluid.

Fluid Condition
The AN level is acceptable for this fluid. The fluid is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0112422**	GFL0060230	---
Sample Date		Client Info		**26 Feb 2024**	03 Oct 2022	---
Machine Age	hrs	Client Info		**3582**	1017	---
Oil Age	hrs	Client Info		**1835**	1017	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>220	**104**	53	---
Chromium	ppm	ASTM D5185(m)	>2	**<1**	0	---
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Silver	ppm	ASTM D5185(m)	>5	**0**	0	---
Aluminum	ppm	ASTM D5185(m)	>75	**29**	10	---
Lead	ppm	ASTM D5185(m)	>95	**27**	13	---
Copper	ppm	ASTM D5185(m)	>60	▲ **87**	22	---
Tin	ppm	ASTM D5185(m)	>10	**4**	2	---
Antimony	ppm	ASTM D5185(m)	>2	**0**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	78	**120**	156	---
Barium	ppm	ASTM D5185(m)		**<1**	<1	---
Molybdenum	ppm	ASTM D5185(m)	0	**<1**	<1	---
Manganese	ppm	ASTM D5185(m)		**3**	4	---
Magnesium	ppm	ASTM D5185(m)	0	**2**	2	---
Calcium	ppm	ASTM D5185(m)	113	**149**	158	---
Phosphorus	ppm	ASTM D5185(m)	222	**396**	465	---
Zinc	ppm	ASTM D5185(m)		**49**	29	---
Sulfur	ppm	ASTM D5185(m)	1326	**2233**	2475	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**7**	7	---
Sodium	ppm	ASTM D5185(m)		**16**	14	---
Potassium	ppm	ASTM D5185(m)	>20	**4**	4	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	1.4	**1.78**	2.15	---

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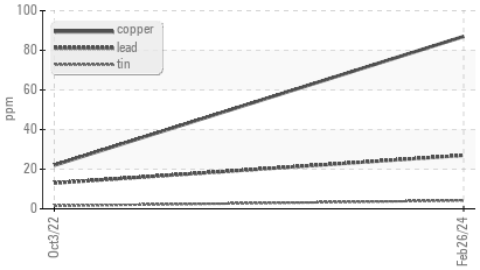
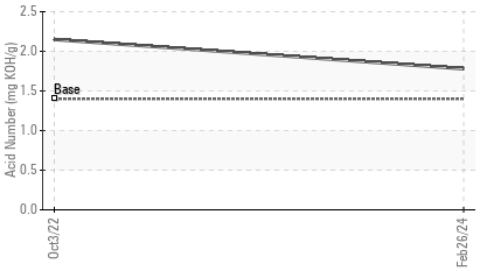
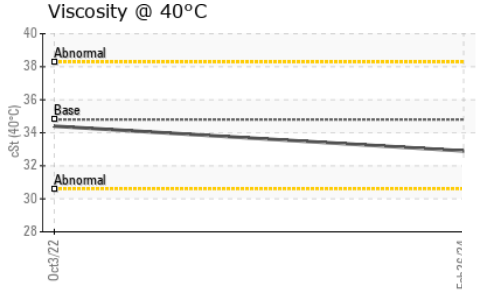
Non-ferrous Metals



Acid Number

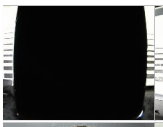


Viscosity @ 40°C



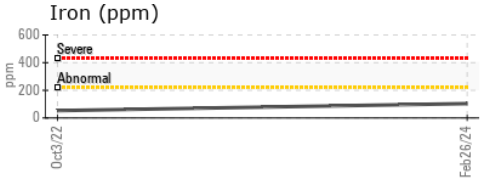
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	---
Silt	scalar	Visual*	NONE	**NONE**	NONE	---
Debris	scalar	Visual*	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	VLITE	---
Appearance	scalar	Visual*	NORML	**NORML**	NORML	---
Odor	scalar	Visual*	NORML	**NORML**	NORML	---
Emulsified Water	scalar	Visual*	>0.1	**NEG**	NEG	---
Free Water	scalar	Visual*		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	34.8	**32.9**	34.4	---

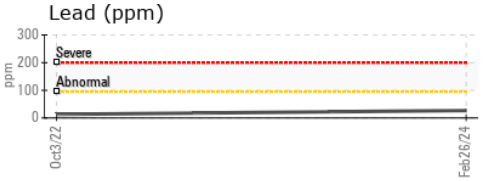
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

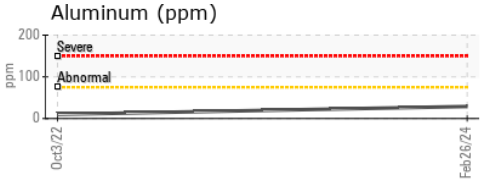
Iron (ppm)



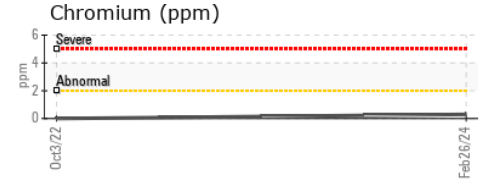
Lead (ppm)



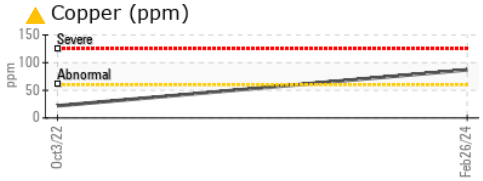
Aluminum (ppm)



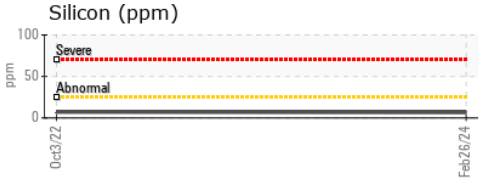
Chromium (ppm)



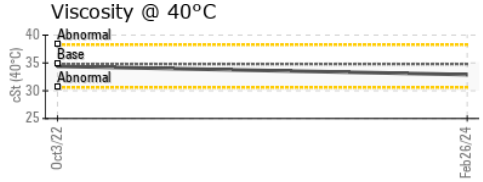
Copper (ppm)



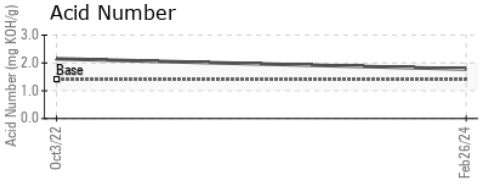
Silicon (ppm)



Viscosity @ 40°C



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112422
Lab Number : 02619606
Unique Number : 5736716
Test Package : MOB 2 (Additional Tests: TAN Man)

Received : 04 Mar 2024
Tested : 04 Mar 2024
Diagnosed : 05 Mar 2024 - Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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