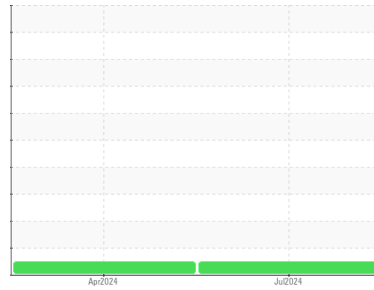




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

934083

Component

Natural Gas Engine

Fluid

PETRO CANADA 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

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. 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		GFL0121837	GFL0106735	---
Sample Date	Client Info		02 Jul 2024	18 Apr 2024	---
Machine Age	hrs	Client Info	1097	552	---
Oil Age	hrs	Client Info	600	552	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	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 D5185m	>50	13	34	---
Chromium	ppm	ASTM D5185m	>4	1	2	---
Nickel	ppm	ASTM D5185m	>2	0	2	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	<1	<1	---
Aluminum	ppm	ASTM D5185m	>9	14	23	---
Lead	ppm	ASTM D5185m	>30	0	2	---
Copper	ppm	ASTM D5185m	>35	3	18	---
Tin	ppm	ASTM D5185m	>4	0	2	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
Cadmium	ppm	ASTM D5185m		0	<1	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		14	25	---
Barium	ppm	ASTM D5185m		0	2	---
Molybdenum	ppm	ASTM D5185m		56	62	---
Manganese	ppm	ASTM D5185m		2	10	---
Magnesium	ppm	ASTM D5185m		575	721	---
Calcium	ppm	ASTM D5185m		1695	1299	---
Phosphorus	ppm	ASTM D5185m		681	668	---
Zinc	ppm	ASTM D5185m		863	881	---
Sulfur	ppm	ASTM D5185m		2494	2599	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	5	29	---
Sodium	ppm	ASTM D5185m		10	5	---
Potassium	ppm	ASTM D5185m	>20	42	85	---

INFRA-RED

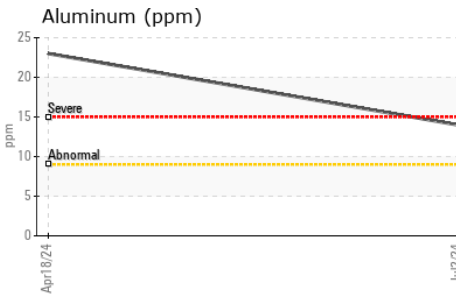
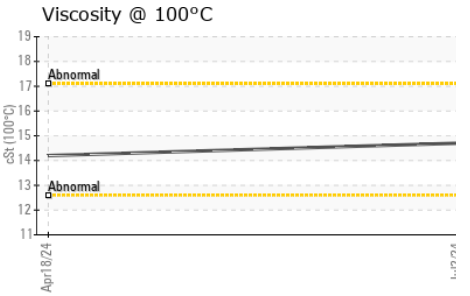
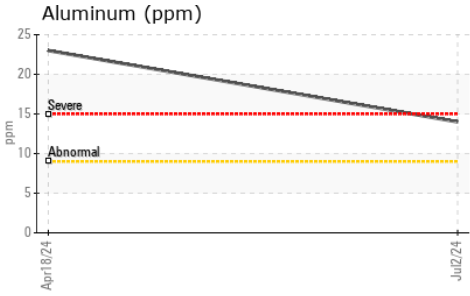
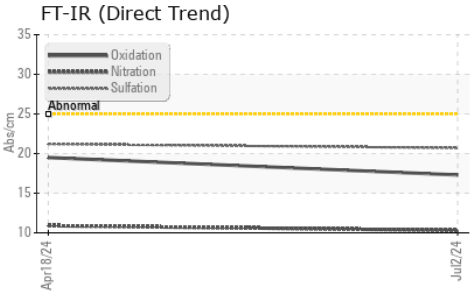
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	10.3	10.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	21.2	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.3	19.5	---
Base Number (BN)	mg KOH/g	ASTM D2896		5.8	5.3	---



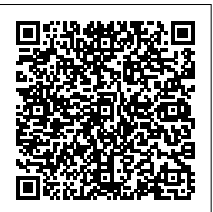
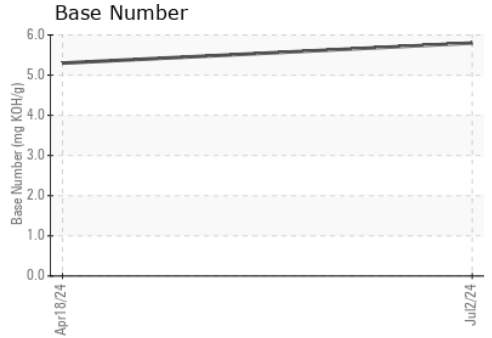
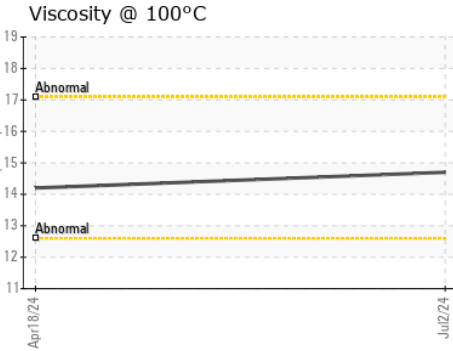
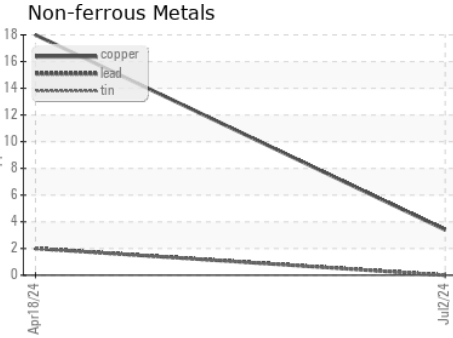
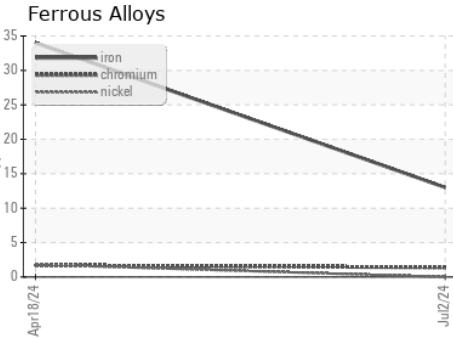
OIL ANALYSIS REPORT



PARAMETER	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	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.7	14.2	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0121837 **Received** : 05 Jul 2024
Lab Number : 06228390 **Tested** : 08 Jul 2024
Unique Number : 11111883 **Diagnosed** : 08 Jul 2024 - Wes Davis
Test Package : FLEET

GFL Environmental - 856 - Houston South
 8515 Highway 6 South
 Houston, TX 77083
 Contact: Jose Gonzalez
 jgonzalez2@gflenv.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)

T:
F: