



OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
434023

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- 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

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. 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		GFL0104003	---	---
Sample Date	Client Info		12 Feb 2024	---	---
Machine Age	hrs	Client Info	625	---	---
Oil Age	hrs	Client Info	625	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			NORMAL	---	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	35	---	---
Chromium	ppm	ASTM D5185m >4	1	---	---
Nickel	ppm	ASTM D5185m >2	1	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >9	16	---	---
Lead	ppm	ASTM D5185m >30	<1	---	---
Copper	ppm	ASTM D5185m >35	13	---	---
Tin	ppm	ASTM D5185m >4	2	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	14	---	---
Barium	ppm	ASTM D5185m 5	2	---	---
Molybdenum	ppm	ASTM D5185m 50	51	---	---
Manganese	ppm	ASTM D5185m 0	10	---	---
Magnesium	ppm	ASTM D5185m 560	677	---	---
Calcium	ppm	ASTM D5185m 1510	1313	---	---
Phosphorus	ppm	ASTM D5185m 780	669	---	---
Zinc	ppm	ASTM D5185m 870	909	---	---
Sulfur	ppm	ASTM D5185m 2040	2325	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	23	---	---
Sodium	ppm	ASTM D5185m	4	---	---
Potassium	ppm	ASTM D5185m >20	73	---	---

INFRA-RED

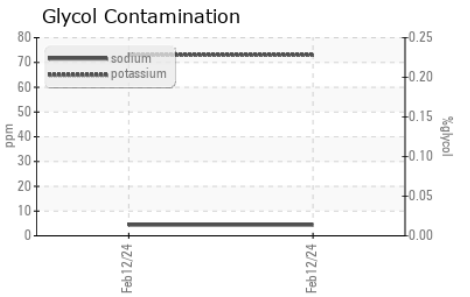
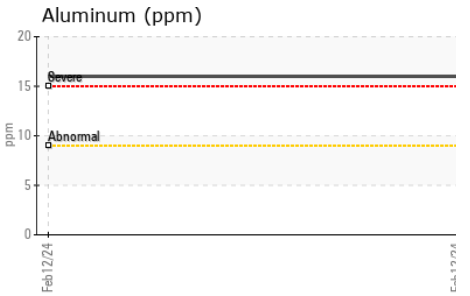
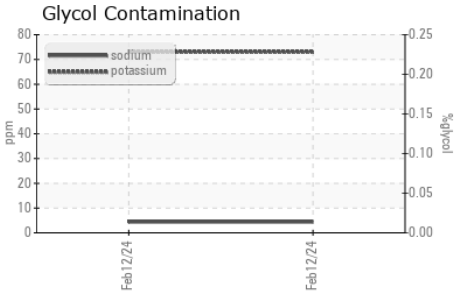
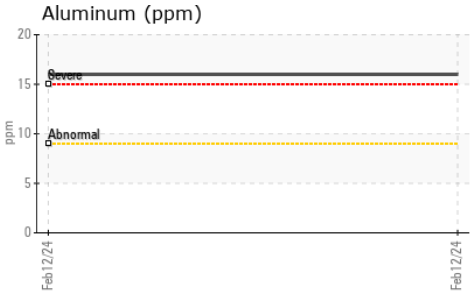
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.4	---	---
Nitration	Abs/cm	*ASTM D7624 >20	9.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.1	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.2	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	4.3	---	---



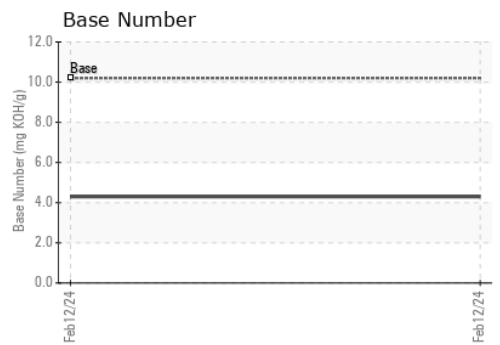
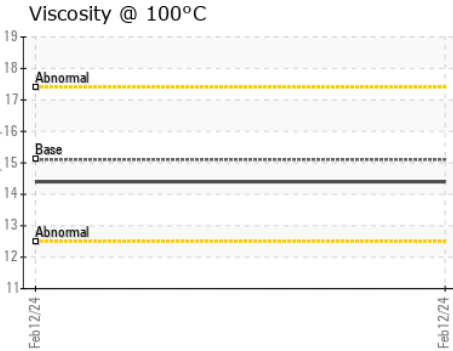
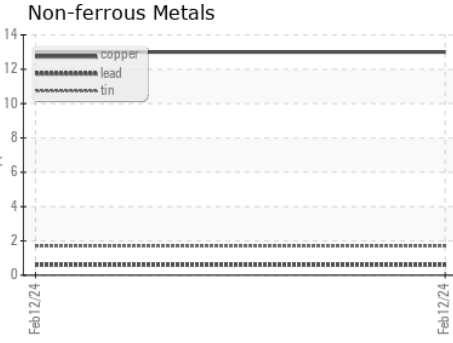
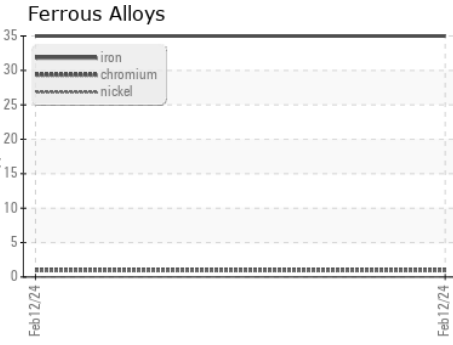
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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.4	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0104003 **Received** : 16 Feb 2024
Lab Number : 06091636 **Tested** : 19 Feb 2024
Unique Number : 10884489 **Diagnosed** : 19 Feb 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 865 - East Mount Hauling
 7213 East Mount Houston Road
 Houston, TX
 US 77050
 Contact: Saul Castillo
 saul.castillo@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)

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F: