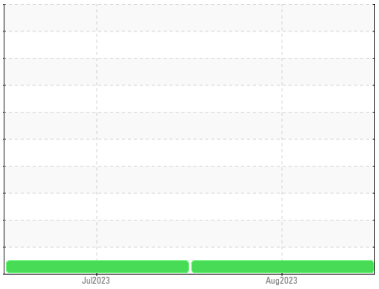
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
733020
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- QTS)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
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.

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		**GFL0090686**	GFL0087226	---
Sample Date		Client Info		**24 Aug 2023**	25 Jul 2023	---
Machine Age	hrs	Client Info		**330**	152	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**Not Changd**	Not Changd	---
Sample Status				**NORMAL**	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**41**	31	---
Chromium	ppm	ASTM D5185m	>4	**<1**	0	---
Nickel	ppm	ASTM D5185m	>2	**<1**	<1	---
Titanium	ppm	ASTM D5185m		**0**	<1	---
Silver	ppm	ASTM D5185m	>3	**<1**	0	---
Aluminum	ppm	ASTM D5185m	>9	**26**	12	---
Lead	ppm	ASTM D5185m	>30	**<1**	<1	---
Copper	ppm	ASTM D5185m	>35	**19**	17	---
Tin	ppm	ASTM D5185m	>4	**1**	<1	---
Vanadium	ppm	ASTM D5185m		**0**	<1	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**20**	26	---
Barium	ppm	ASTM D5185m	5	**<1**	0	---
Molybdenum	ppm	ASTM D5185m	50	**53**	46	---
Manganese	ppm	ASTM D5185m	0	**12**	11	---
Magnesium	ppm	ASTM D5185m	560	**824**	733	---
Calcium	ppm	ASTM D5185m	1510	**1129**	1035	---
Phosphorus	ppm	ASTM D5185m	780	**729**	678	---
Zinc	ppm	ASTM D5185m	870	**938**	820	---
Sulfur	ppm	ASTM D5185m	2040	**2925**	2528	---

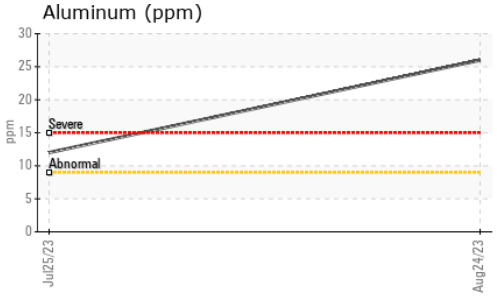
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**33**	28	---
Sodium	ppm	ASTM D5185m		**16**	4	---
Potassium	ppm	ASTM D5185m	>20	**100**	43	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	**10.8**	9.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.5**	19.8	---

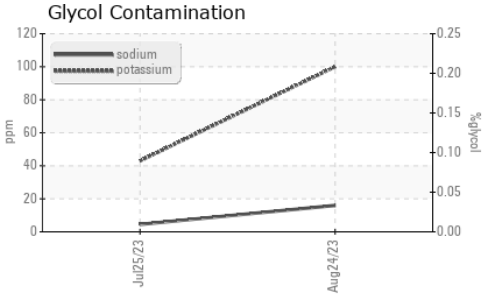
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.0**	17.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**4.9**	7.5	---

OIL ANALYSIS REPORT

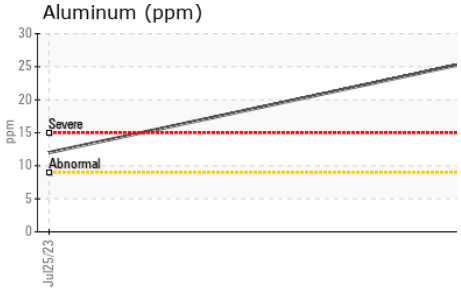
Aluminum (ppm)



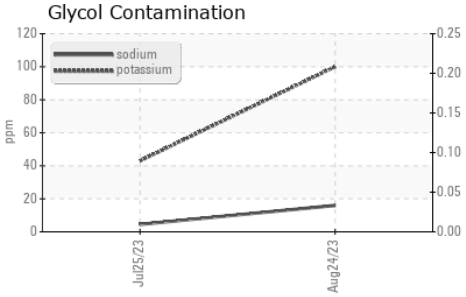
Glycol Contamination



Aluminum (ppm)



Glycol Contamination

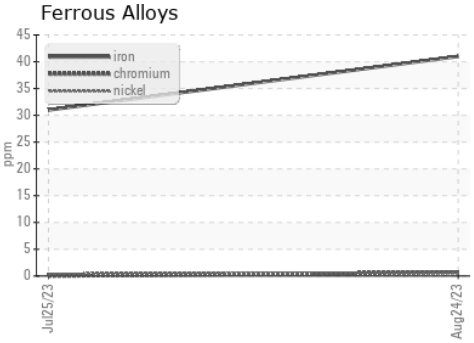


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
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	---

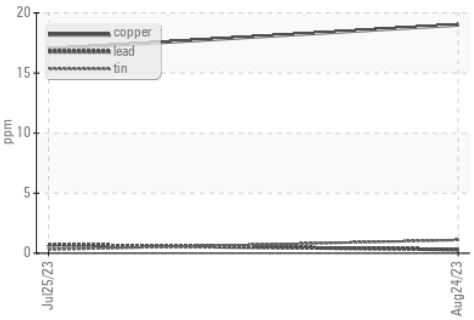
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**14.2**	14.0	---

GRAPHS

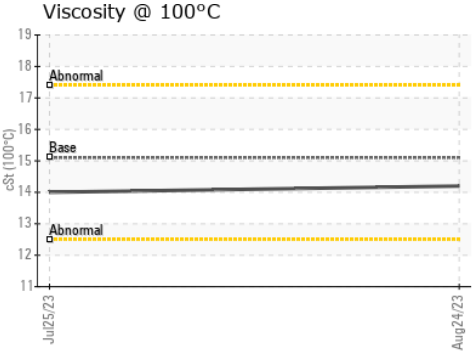
Ferrous Alloys



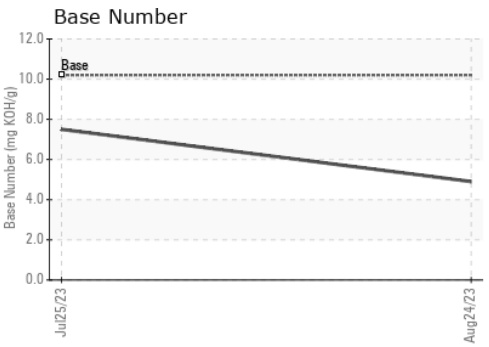
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0090686 **Received** : 30 Aug 2023
Lab Number : 05938069 **Diagnosed** : 31 Aug 2023
Unique Number : 10628681 **Diagnostician** : Don Baldridge
Test Package : FLEET (Additional Tests: Glycol)

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)

GFL Environmental - 836 - Kansas City Hauling
7801 East Truman Road
Kansas City, MO
US 64126
Contact: Robert Hart
rhart@gflenv.com
T: (580)461-1509
F: