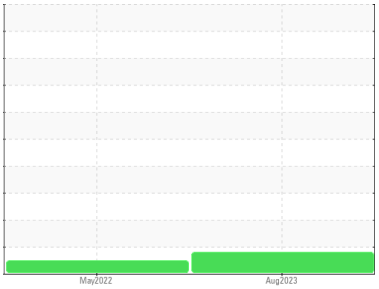
PROBLEM SUMMARY

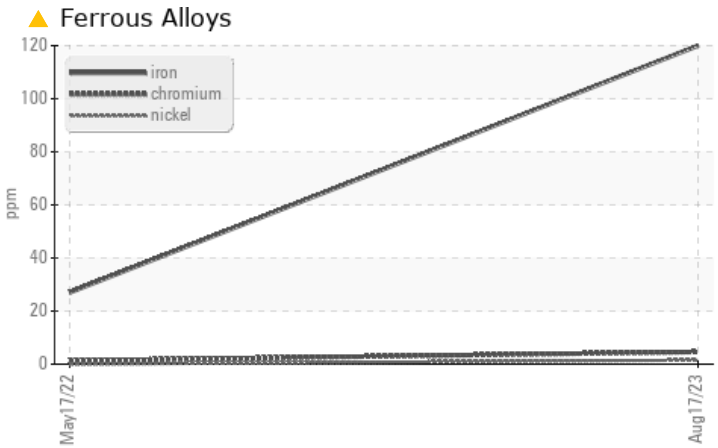
Machine Id
4617M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



WEAR

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	---
Iron	ppm	ASTM D5185m	>90	▲ **120**	27	---

Customer Id: GFL410
Sample No.: GFL0085059
Lab Number: 05929191
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

17 May 2022 Diag: Jonathan Hester

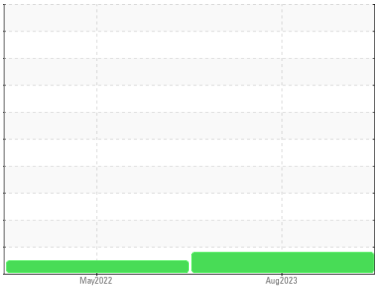
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
4617M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

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

Wear
Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Contamination
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		**GFL0085059**	GFL0052139	---
Sample Date		Client Info		**17 Aug 2023**	17 May 2022	---
Machine Age	hrs	Client Info		**20169**	17018	---
Oil Age	hrs	Client Info		**20169**	17018	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**ABNORMAL**	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	---
Glycol		WC Method		**NEG**	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	▲ **120**	27	---
Chromium	ppm	ASTM D5185m	>20	**5**	1	---
Nickel	ppm	ASTM D5185m	>2	**2**	0	---
Titanium	ppm	ASTM D5185m	>2	**<1**	0	---
Silver	ppm	ASTM D5185m	>2	**0**	0	---
Aluminum	ppm	ASTM D5185m	>20	**7**	4	---
Lead	ppm	ASTM D5185m	>40	**1**	<1	---
Copper	ppm	ASTM D5185m	>330	**3**	1	---
Tin	ppm	ASTM D5185m	>15	**<1**	<1	---
Vanadium	ppm	ASTM D5185m		**<1**	<1	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**2**	4	---
Barium	ppm	ASTM D5185m	0	**0**	0	---
Molybdenum	ppm	ASTM D5185m	60	**63**	61	---
Manganese	ppm	ASTM D5185m	0	**1**	<1	---
Magnesium	ppm	ASTM D5185m	1010	**995**	983	---
Calcium	ppm	ASTM D5185m	1070	**1149**	1148	---
Phosphorus	ppm	ASTM D5185m	1150	**1059**	1078	---
Zinc	ppm	ASTM D5185m	1270	**1300**	1360	---
Sulfur	ppm	ASTM D5185m	2060	**3243**	2606	---

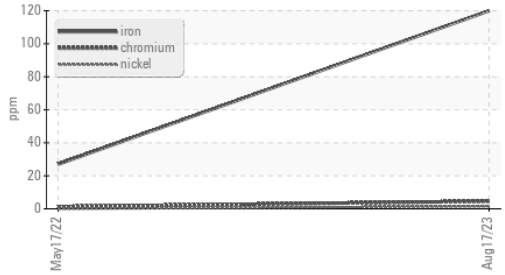
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**13**	5	---
Sodium	ppm	ASTM D5185m		**9**	8	---
Potassium	ppm	ASTM D5185m	>20	**<1**	2	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	**1.5**	0.8	---
Nitration	Abs/cm	*ASTM D7624	>20	**12.8**	11.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**25.0**	23.9	---

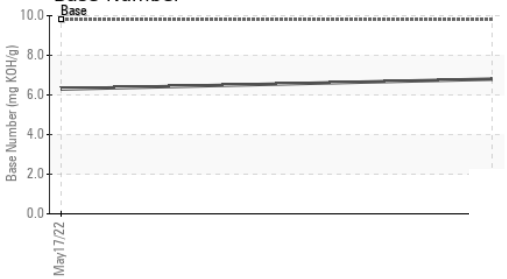
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**22.6**	23.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**6.8**	6.3	---

OIL ANALYSIS REPORT

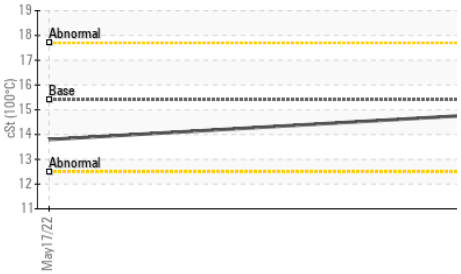
Ferrous Alloys



Base Number



Viscosity @ 100°C

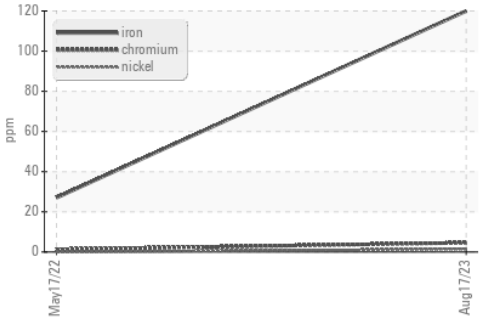


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

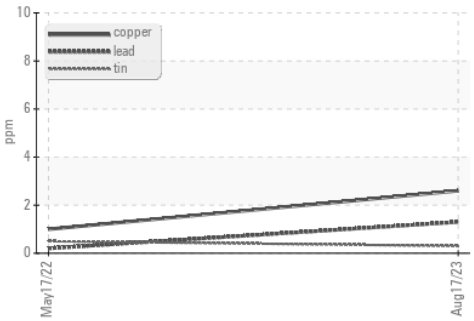
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**14.8**	13.8	---

GRAPHS

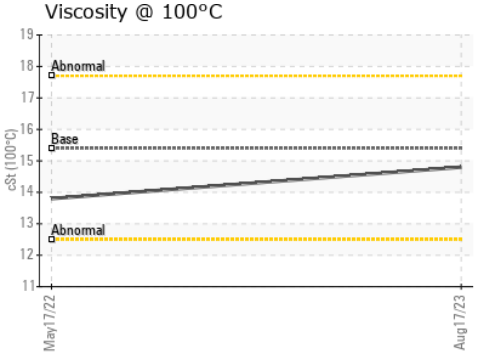
Ferrous Alloys



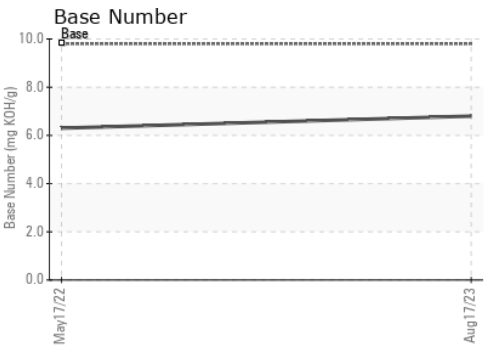
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0085059
Lab Number : 05929191
Unique Number : 10609138
Test Package : FLEET

Received : 21 Aug 2023
Diagnosed : 22 Aug 2023
Diagnostician : Don Baldridge

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 - 410 - Michigan West
39000 Van Born Rd
Wayne, MI
US 48184
Contact: Belal Dgheish
bdgheish@gflenv.com
T: (734)714-2340
F: