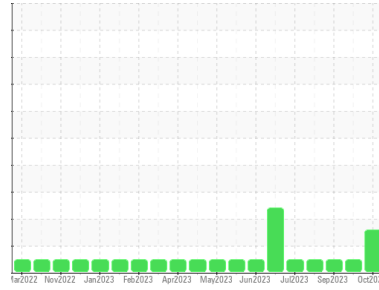




PROBLEM SUMMARY

Sample Rating Trend



DEGRADATION



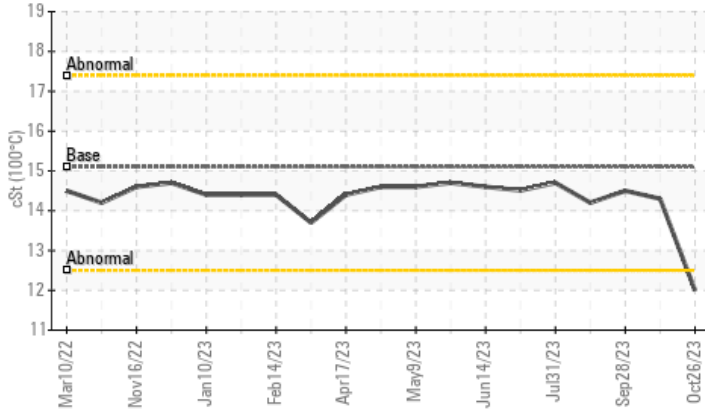
Machine Id
731115

Component
Natural Gas Engine

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

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	NORMAL	NORMAL		
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	▲ 2.8	5.1	5.0
Visc @ 100°C	cSt	ASTM D445	15.1	▲ 12.0	14.3	14.5

Customer Id: GFL836
Sample No.: GFL0095102
Lab Number: 05995258
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Service/change Fluid	---	---	?	The oil is near the end of it's useful service life, recommend schedule an oil change.

HISTORICAL DIAGNOSIS

01 Oct 2023 Diag: Don Baldrige

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



28 Sep 2023 Diag: Wes Davis

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



04 Sep 2023 Diag: Wes Davis

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

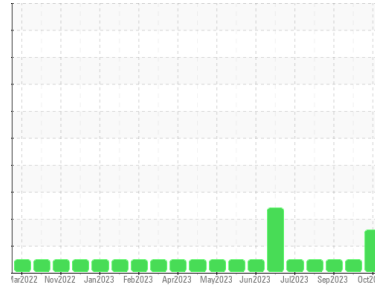
Sample Rating Trend

DEGRADATION

Machine Id
731115

Component
Natural Gas Engine

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



DIAGNOSIS

Recommendation

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0095102	GFL0090710	GFL0090698
Sample Date	Client Info	26 Oct 2023	01 Oct 2023	28 Sep 2023
Machine Age	hrs	5995	5820	5793
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	29	14	9
Chromium	ppm	ASTM D5185m >4	1	1	<1
Nickel	ppm	ASTM D5185m >2	<1	0	<1
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	5	7	<1
Lead	ppm	ASTM D5185m >30	11	1	2
Copper	ppm	ASTM D5185m >35	14	3	2
Tin	ppm	ASTM D5185m >4	2	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	7	14	11
Barium	ppm	ASTM D5185m 5	4	0	0
Molybdenum	ppm	ASTM D5185m 50	51	52	53
Manganese	ppm	ASTM D5185m 0	4	<1	<1
Magnesium	ppm	ASTM D5185m 560	775	600	559
Calcium	ppm	ASTM D5185m 1510	1160	1495	1660
Phosphorus	ppm	ASTM D5185m 780	724	695	690
Zinc	ppm	ASTM D5185m 870	861	910	949
Sulfur	ppm	ASTM D5185m 2040	2015	2333	2395

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	78	18	5
Sodium	ppm	ASTM D5185m	8	3	8
Potassium	ppm	ASTM D5185m >20	8	28	1

INFRA-RED

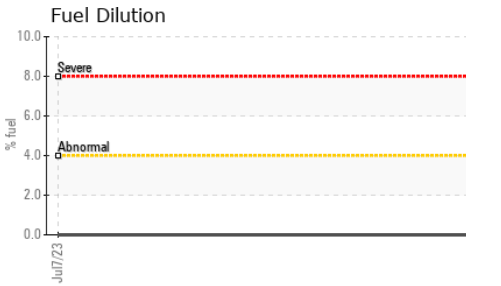
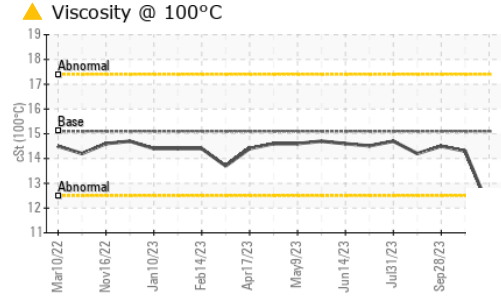
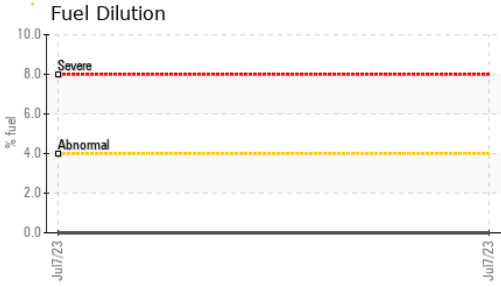
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	13.0	9.7	10.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	26.9	20.2	21.0

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	25.2	17.8	18.1
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	▲ 2.8	5.1	5.0



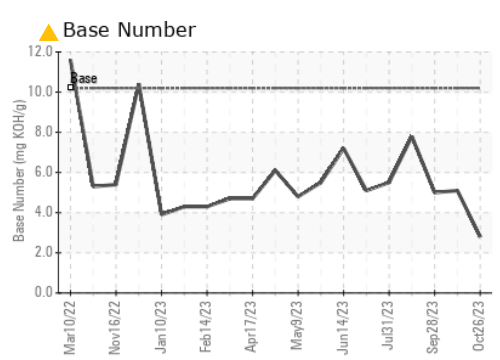
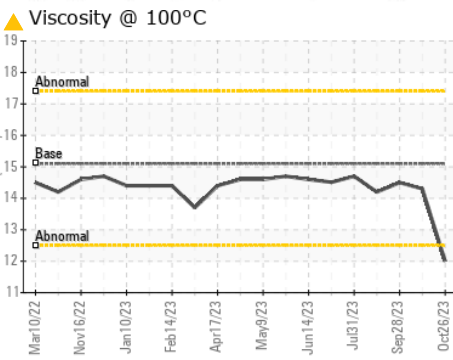
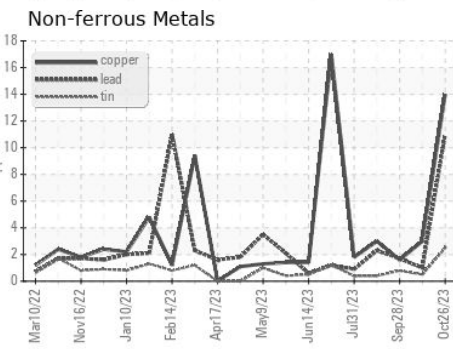
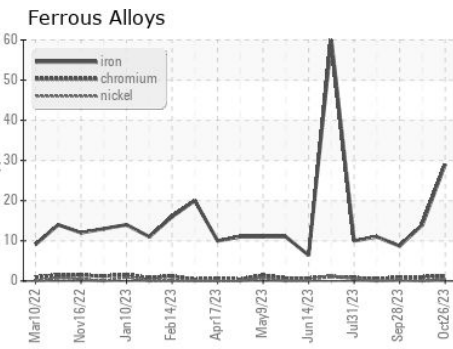
OIL ANALYSIS REPORT



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	▲ 12.0	14.3	14.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0095102 **Received** : 01 Nov 2023
Lab Number : 05995258 **Diagnosed** : 03 Nov 2023
Unique Number : 10723618 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FUELDILUTION, PercentFuel)

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:

Certificate L2367
 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)