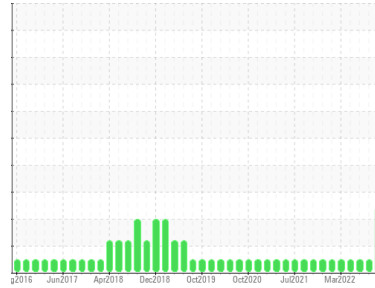




PROBLEM SUMMARY

Sample Rating Trend



WEAR



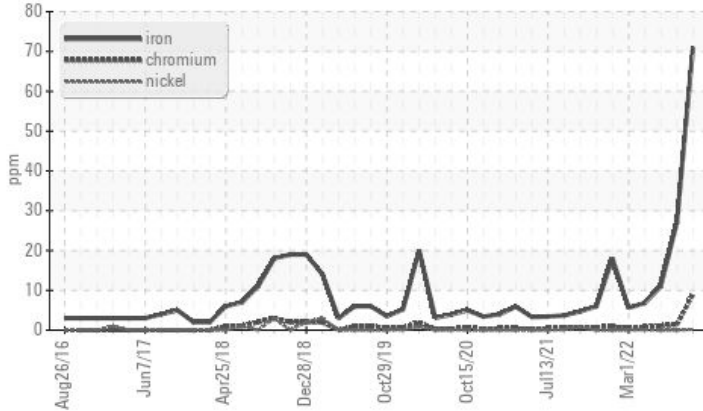
Machine Id
2591C

Component
Natural Gas Engine

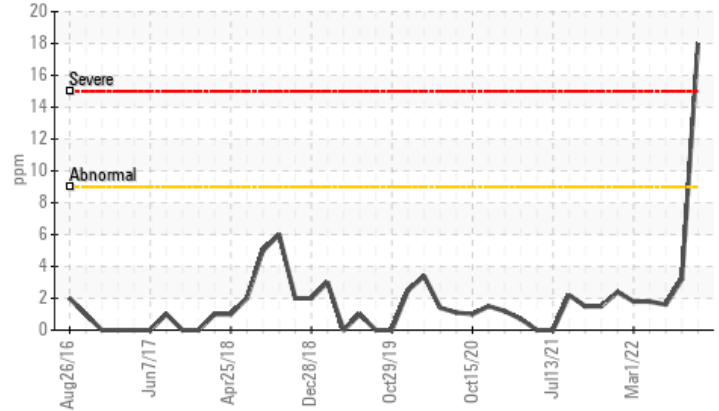
Fluid
PETRO CANADA DURON GEO LD 15W40 (42 QTS)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



▲ Aluminum (ppm)



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	▲ 71	27	11
Chromium	ppm	ASTM D5185m	>4	▲ 9	1	1
Aluminum	ppm	ASTM D5185m	>9	▲ 18	3	2

Customer Id: GFL001
Sample No.: GFL0089352
Lab Number: 05925262
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@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
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

20 Jul 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



26 Sep 2022 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



20 Jun 2022 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.

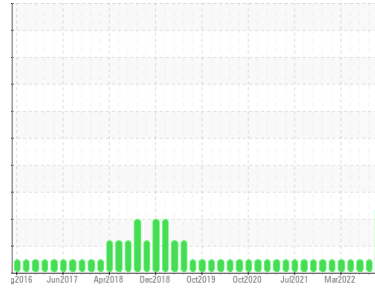
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
2591C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (42 QTS)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

▲ Wear

Piston, ring and cylinder wear is indicated.

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	GFL0089352	GFL0089346	GFL0056536
Sample Date	Client Info	11 Aug 2023	20 Jul 2023	26 Sep 2022
Machine Age	hrs	3055	2900	1030
Oil Age	hrs	0	0	510
Oil Changed	Client Info	Changed	Not Changd	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >50	▲ 71	27	11
Chromium ppm	ASTM D5185m >4	▲ 9	1	1
Nickel ppm	ASTM D5185m >2	<1	0	0
Titanium ppm	ASTM D5185m	<1	<1	0
Silver ppm	ASTM D5185m >3	0	0	0
Aluminum ppm	ASTM D5185m >9	▲ 18	3	2
Lead ppm	ASTM D5185m >30	3	5	2
Copper ppm	ASTM D5185m >35	0	2	0
Tin ppm	ASTM D5185m >4	0	<1	0
Vanadium ppm	ASTM D5185m	0	<1	0
Cadmium ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 50	6	11	4
Barium ppm	ASTM D5185m 5	0	0	0
Molybdenum ppm	ASTM D5185m 50	53	53	49
Manganese ppm	ASTM D5185m 0	0	<1	<1
Magnesium ppm	ASTM D5185m 560	612	552	509
Calcium ppm	ASTM D5185m 1510	1820	1717	1590
Phosphorus ppm	ASTM D5185m 780	749	705	662
Zinc ppm	ASTM D5185m 870	1079	952	843
Sulfur ppm	ASTM D5185m 2040	3399	2962	2678

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >+100	60	14	22
Sodium ppm	ASTM D5185m	12	10	6
Potassium ppm	ASTM D5185m >20	<1	2	0

INFRA-RED

method	limit/base	current	history1	history2
Soot %	*ASTM D7844	0.1	0	0.1
Nitration Abs/cm	*ASTM D7624 >20	11.6	10.0	12.3
Sulfation Abs/.1mm	*ASTM D7415 >30	24.7	19.4	24.5

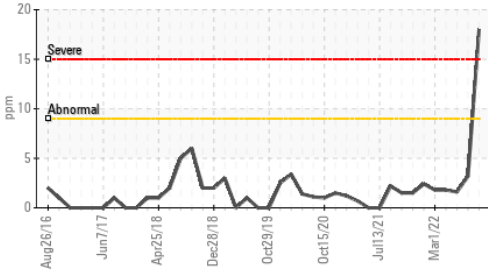
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation Abs/.1mm	*ASTM D7414 >25	20.4	17.3	20.2
Base Number (BN) mg KOH/g	ASTM D2896 10.2	3.4	6.0	4.7

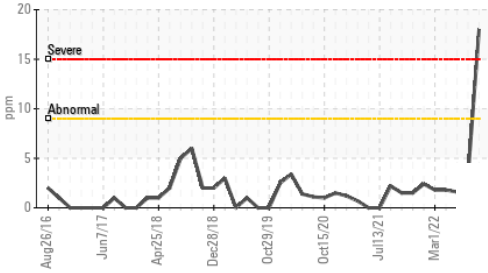


OIL ANALYSIS REPORT

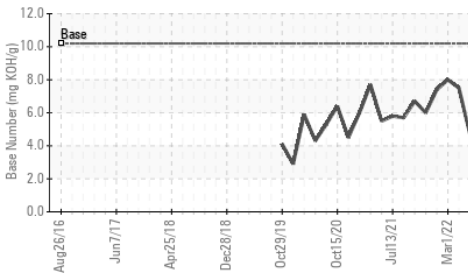
▲ Aluminum (ppm)



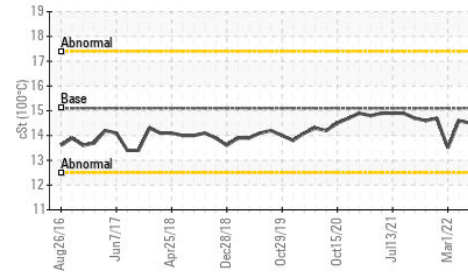
▲ Aluminum (ppm)



Base Number



Viscosity @ 100°C

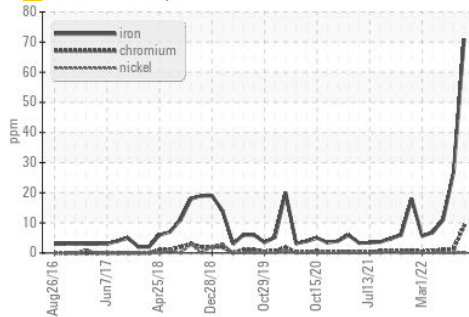


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

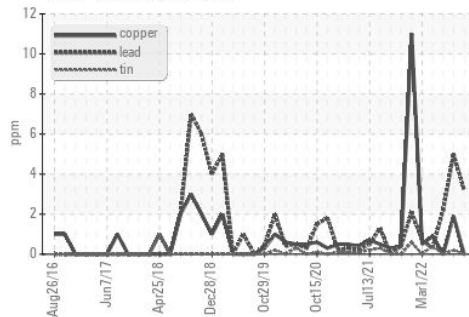
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.5	14.5

GRAPHS

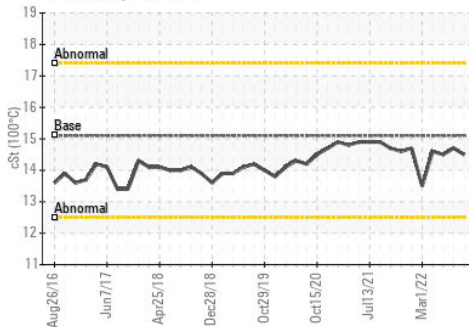
▲ Ferrous Alloys



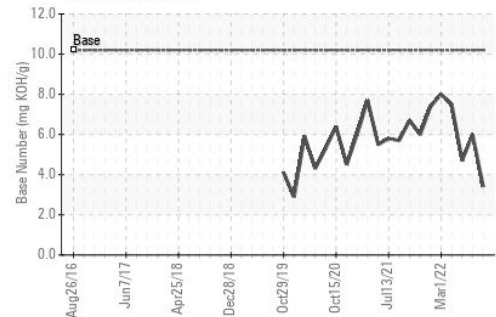
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0089352 **Received** : 15 Aug 2023
Lab Number : 05925262 **Diagnosed** : 16 Aug 2023
Unique Number : 10605209 **Diagnostician** : Doug Bogart
Test Package : FLEET

GFL Environmental - 001 - Raleigh(CNG)
 3741 Conquest Drive
 Garner, NC
 US 27529
 Contact: Craig Johnson
 craig.johnson@gflenv.com
 T: (919)662-7100
 F: (919)662-7130

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)