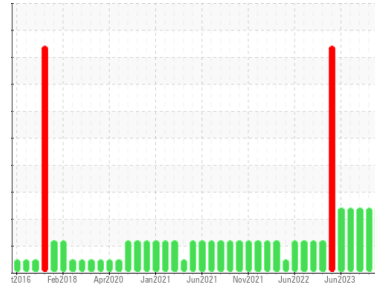




OIL ANALYSIS REPORT

Sample Rating Trend



COOLANT



Machine Id
2618C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (12 GAL)

DIAGNOSIS

Recommendation

We advise that you check for possible coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0098153	GFL0098122	GFL0079608
Sample Date	Client Info		13 Feb 2024	04 Dec 2023	08 Aug 2023
Machine Age	hrs	Client Info	10732	10732	10732
Oil Age	hrs	Client Info	501	582	245
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	8	13	7
Chromium	ppm	ASTM D5185m >4	<1	1	<1
Nickel	ppm	ASTM D5185m >2	<1	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	<1	<1	<1
Aluminum	ppm	ASTM D5185m >9	2	3	2
Lead	ppm	ASTM D5185m >30	2	6	<1
Copper	ppm	ASTM D5185m >35	0	<1	<1
Tin	ppm	ASTM D5185m >4	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	8	9	18
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	52	63	58
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 560	562	559	554
Calcium	ppm	ASTM D5185m 1510	1510	1571	1557
Phosphorus	ppm	ASTM D5185m 780	722	700	785
Zinc	ppm	ASTM D5185m 870	995	1031	936
Sulfur	ppm	ASTM D5185m 2040	2591	2659	2646

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	10	16	11
Sodium	ppm	ASTM D5185m	▲ 112	▲ 295	▲ 193
Potassium	ppm	ASTM D5185m >20	▲ 395	▲ 603	▲ 344

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	11.4	11.3	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.0	22.7	19.3

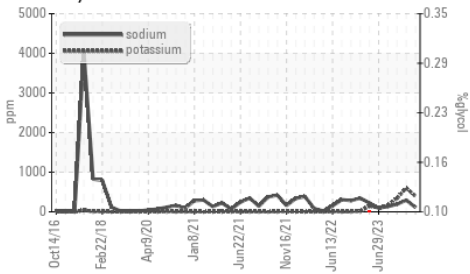
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.9	18.2	16.1
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	6.4	6.4	8.4

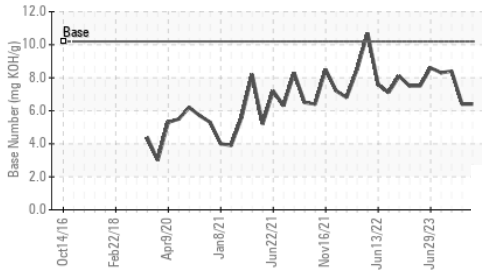


OIL ANALYSIS REPORT

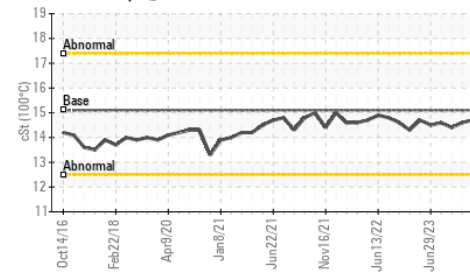
Glycol Contamination



Base Number



Viscosity @ 100°C

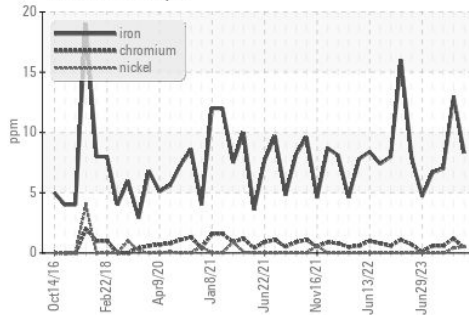


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

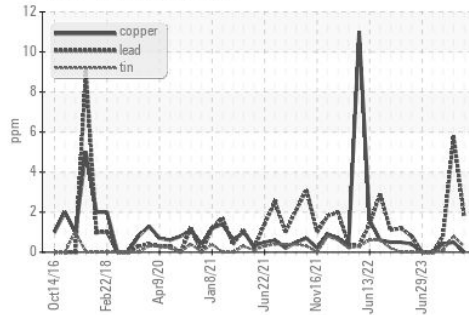
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.7	14.6

GRAPHS

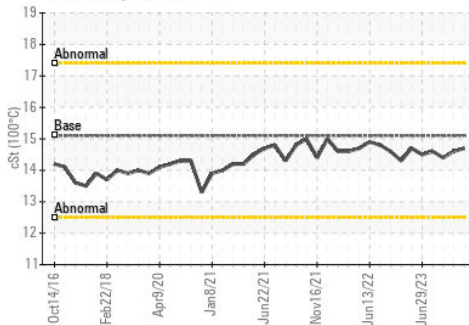
Ferrous Alloys



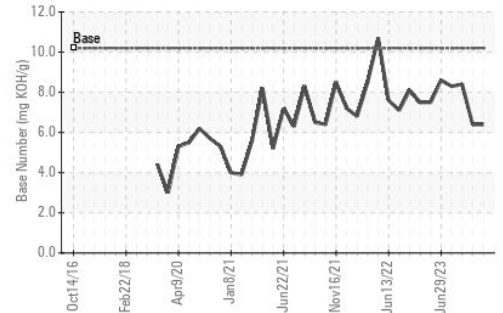
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0098153
 Lab Number : 06088094
 Unique Number : 10875539
 Test Package : FLEET

Received : 13 Feb 2024
 Tested : 14 Feb 2024
 Diagnosed : 15 Feb 2024 - Jonathan Hester

GFL Environmental - 017 - Durham
 148 Stone Park Court
 Durham, NC
 US 27703

Contact:
 bill.waring@wearcheck.com
 T: (919)596-1363
 F: (919)598-1852

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)