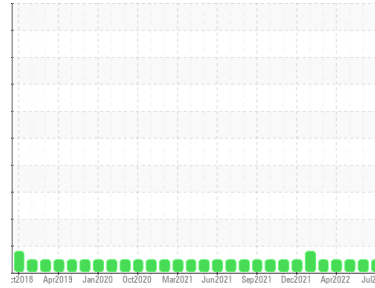




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
2712C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (48 QTS)

DIAGNOSIS

Recommendation

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 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		GFL0089341	GFL0052289	GFL0052362
Sample Date	Client Info		20 Jul 2023	07 Sep 2022	13 Jun 2022
Machine Age	hrs	Client Info	14178	12272	11635
Oil Age	hrs	Client Info	1906	1517	324
Oil Changed	Client Info		Changed	Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

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

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	12	16	27
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	54	56	45
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 560	561	508	519
Calcium	ppm	ASTM D5185m 1510	1746	1613	1431
Phosphorus	ppm	ASTM D5185m 780	708	690	659
Zinc	ppm	ASTM D5185m 870	972	967	818
Sulfur	ppm	ASTM D5185m 2040	2872	2431	2102

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	6	4	5
Sodium	ppm	ASTM D5185m	8	6	4
Potassium	ppm	ASTM D5185m >20	0	2	0

INFRA-RED

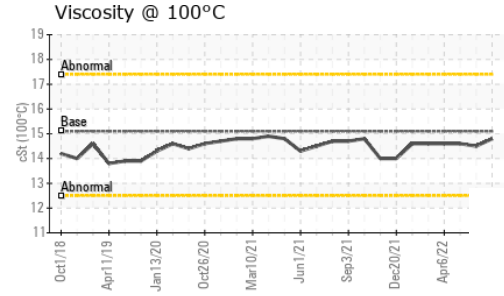
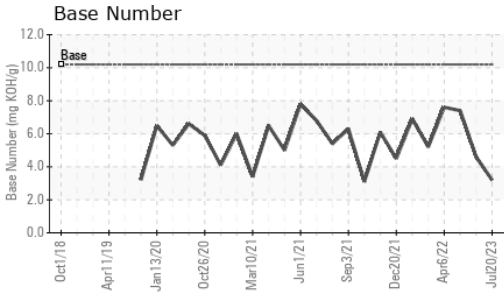
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0	0
Nitration	Abs/cm	*ASTM D7624 >20	12.7	12.2	9.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	30.8	25.3	20.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	29.4	21.9	17.3
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	3.2	4.6	7.4



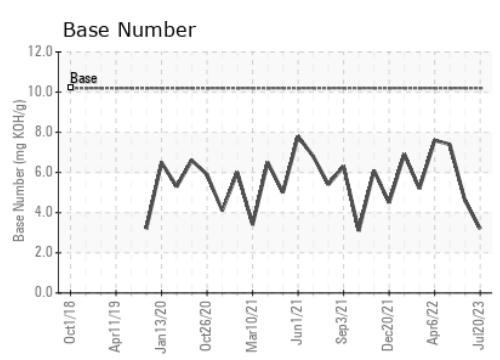
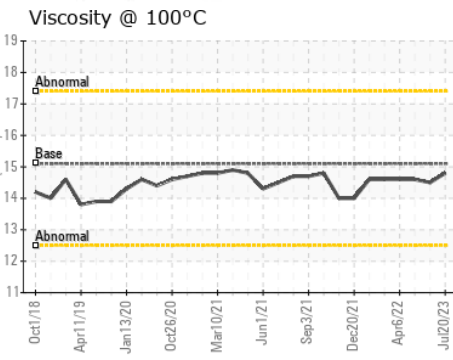
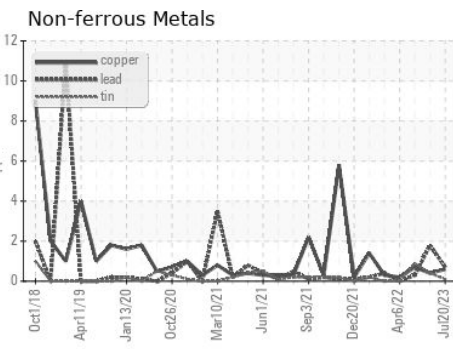
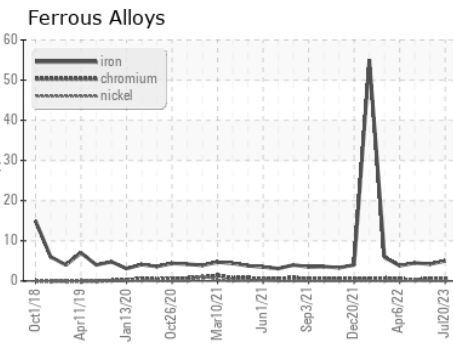
OIL ANALYSIS REPORT



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	15.1	14.8	14.5	14.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0089341 **Received** : 24 Jul 2023
Lab Number : **05905169** **Diagnosed** : 25 Jul 2023
Unique Number : 10566525 **Diagnostician** : Don Baldrige
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

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)