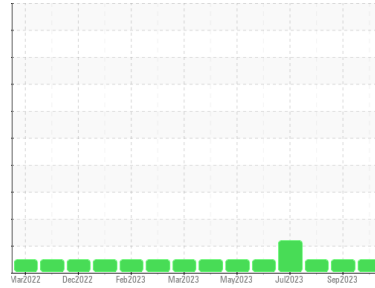




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
731123

Component
Natural Gas Engine

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

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		GFL0095134	GFL0090695	GFL0087166
Sample Date	Client Info		16 Oct 2023	28 Sep 2023	10 Aug 2023
Machine Age	hrs	Client Info	5545	5442	5172
Oil Age	hrs	Client Info	0	1200	0
Oil Changed	Client Info		Not Changed	Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	22	12	18
Chromium	ppm	ASTM D5185m >4	2	<1	2
Nickel	ppm	ASTM D5185m >2	<1	0	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	4	<1	2
Lead	ppm	ASTM D5185m >30	8	<1	18
Copper	ppm	ASTM D5185m >35	3	0	2
Tin	ppm	ASTM D5185m >4	1	<1	1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	11	6	6
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	86	58	58
Manganese	ppm	ASTM D5185m 0	<1	<1	1
Magnesium	ppm	ASTM D5185m 560	857	959	624
Calcium	ppm	ASTM D5185m 1510	2434	1127	1869
Phosphorus	ppm	ASTM D5185m 780	1037	1020	749
Zinc	ppm	ASTM D5185m 870	1438	1288	1022
Sulfur	ppm	ASTM D5185m 2040	3650	3243	2803

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	7	3	5
Sodium	ppm	ASTM D5185m	13	3	10
Potassium	ppm	ASTM D5185m >20	2	4	4

INFRA-RED

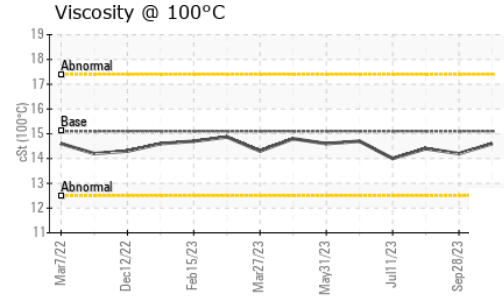
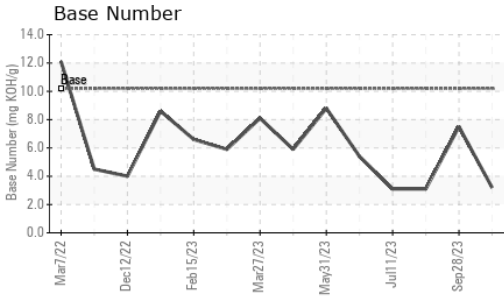
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0.6	0
Nitration	Abs/cm	*ASTM D7624 >20	11.3	6.5	11.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.1	18.8	24.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.1	14.3	20.7
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	3.2	7.5	3.1



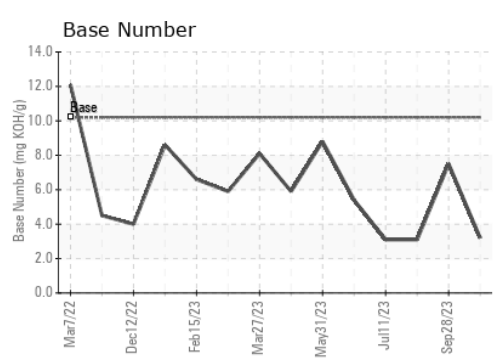
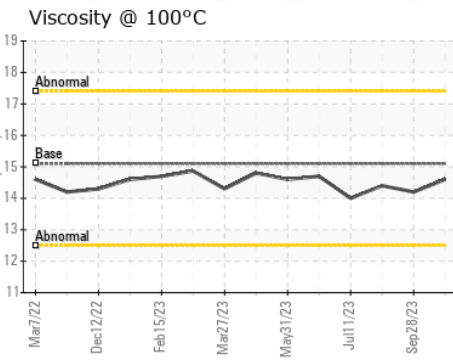
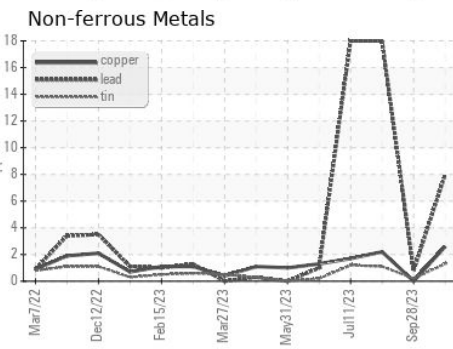
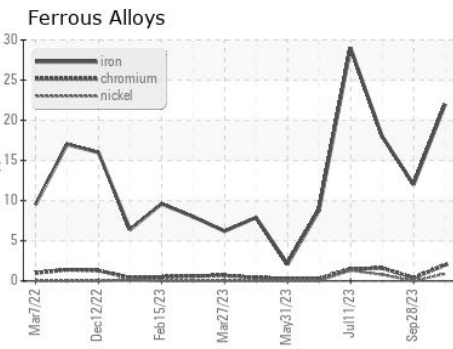
OIL ANALYSIS REPORT



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	14.6	14.2	14.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0095134 **Received** : 19 Oct 2023
Lab Number : **05984108** **Diagnosed** : 21 Oct 2023
Unique Number : 10701403 **Diagnostician** : Don Baldrige
Test Package : FLEET

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)