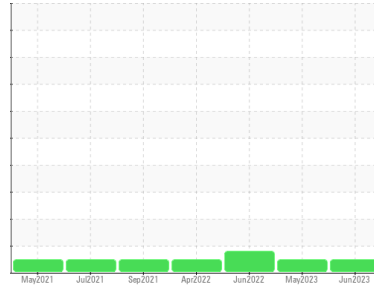




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
945006-260238

Component
Natural Gas Engine

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

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		GFL0083160	GFL0083117	GFL0050206
Sample Date	Client Info		19 Jun 2023	17 May 2023	13 Jun 2022
Machine Age	hrs	Client Info	0	0	3805
Oil Age	hrs	Client Info	0	0	600
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			NORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	13	10	10
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	0	0	<1
Aluminum	ppm	ASTM D5185m >9	<1	2	3
Lead	ppm	ASTM D5185m >30	<1	<1	<1
Copper	ppm	ASTM D5185m >35	9	5	▲ 63
Tin	ppm	ASTM D5185m >4	0	<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	5	9	8
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	62	57	56
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 560	846	909	472
Calcium	ppm	ASTM D5185m 1510	1189	1215	1510
Phosphorus	ppm	ASTM D5185m 780	968	1015	620
Zinc	ppm	ASTM D5185m 870	1148	1272	877
Sulfur	ppm	ASTM D5185m 2040	2946	3793	2117

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	3	4	3
Sodium	ppm	ASTM D5185m	<1	5	5
Potassium	ppm	ASTM D5185m >20	1	2	2

INFRA-RED

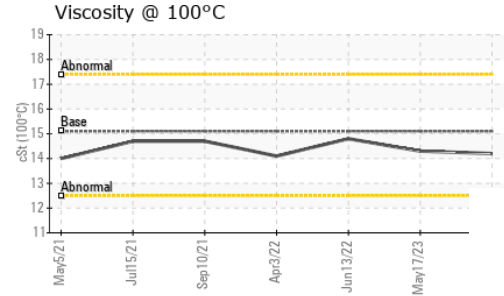
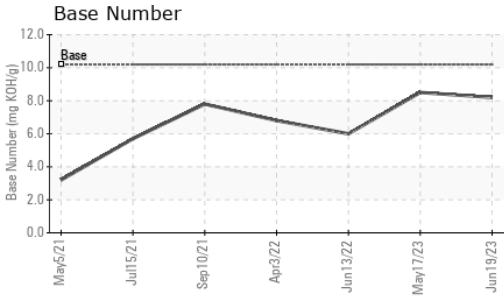
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.1	1.5
Nitration	Abs/cm	*ASTM D7624 >20	7.4	6.4	14.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.4	18.4	28.0

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.5	14.3	27.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	8.2	8.5	6.0



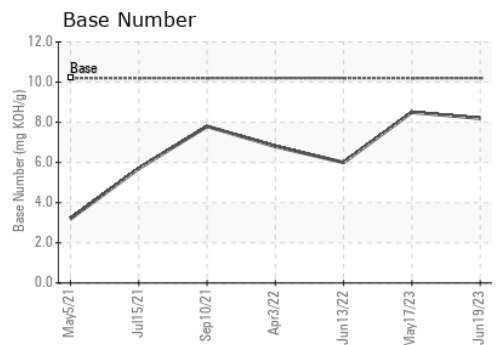
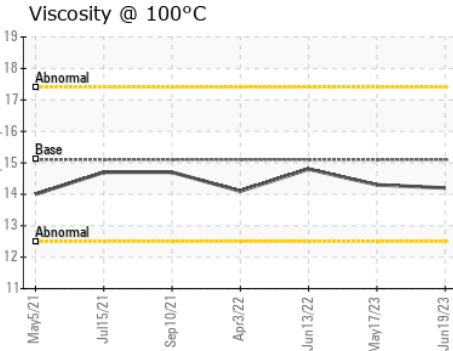
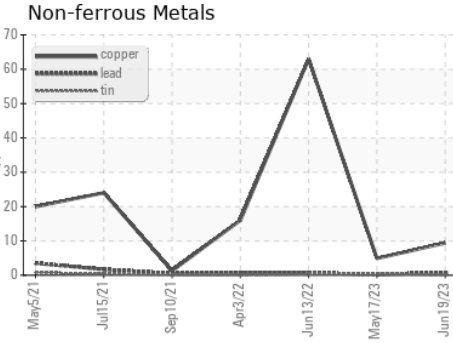
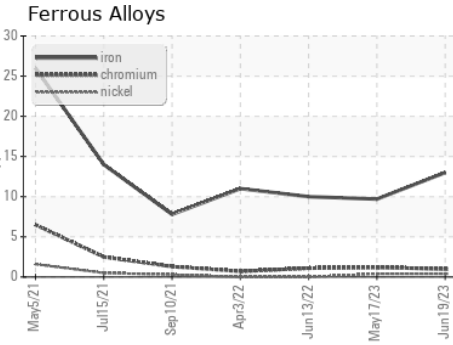
OIL ANALYSIS REPORT



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	15.1	14.2	14.3	14.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0083160 **Received** : 26 Jun 2023
Lab Number : **05883035** **Diagnosed** : 28 Jun 2023
Unique Number : 10533518 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 074 - Douglas - Transwaste
 1219 Landfill Road
 Douglas, GA
 US 31533
 Contact: CURTIS JACOBS
 CURTIS.JACOBS@GFLENV.COM
 T: (912)384-6001
 F:

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)