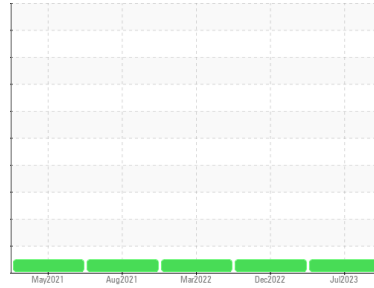




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
945002-260234

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	history 1	history 2	
Sample Number	Client Info	GFL0085401	GFL0066779	GFL0035315	
Sample Date	Client Info	07 Jul 2023	19 Dec 2022	11 Mar 2022	
Machine Age	hrs	Client Info	68802	63367	54271
Oil Age	hrs	Client Info	68802	0	450
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

WEAR METALS

method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185m >50	10	23	5
Chromium	ppm	ASTM D5185m >4	<1	3	<1
Nickel	ppm	ASTM D5185m >2	<1	1	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	2	3	2
Lead	ppm	ASTM D5185m >30	2	13	<1
Copper	ppm	ASTM D5185m >35	<1	1	<1
Tin	ppm	ASTM D5185m >4	<1	1	<1
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m 50	7	6	35
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	52	64	50
Manganese	ppm	ASTM D5185m 0	<1	2	<1
Magnesium	ppm	ASTM D5185m 560	526	640	578
Calcium	ppm	ASTM D5185m 1510	1627	1924	1547
Phosphorus	ppm	ASTM D5185m 780	653	867	805
Zinc	ppm	ASTM D5185m 870	957	1139	889
Sulfur	ppm	ASTM D5185m 2040	2838	3288	2277

CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m >+100	4	6	4
Sodium	ppm	ASTM D5185m	6	10	4
Potassium	ppm	ASTM D5185m >20	2	3	0

INFRA-RED

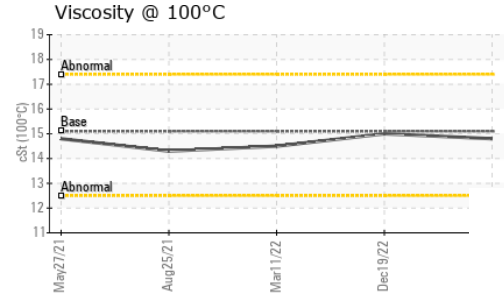
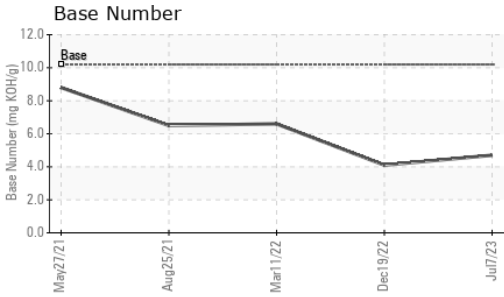
method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	11.7	14.1	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.2	29.5	15.6

FLUID DEGRADATION

method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.7	23.2	10.4
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	4.7	4.1	6.6



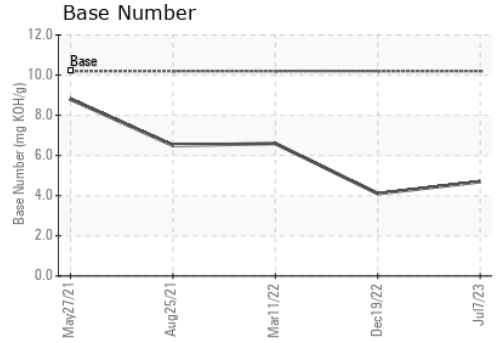
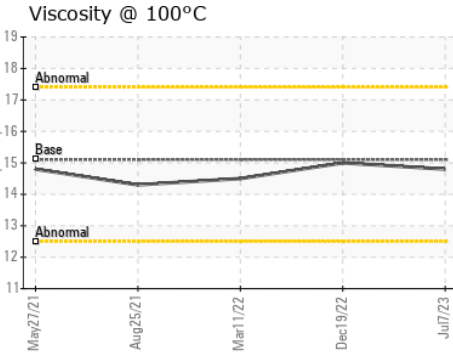
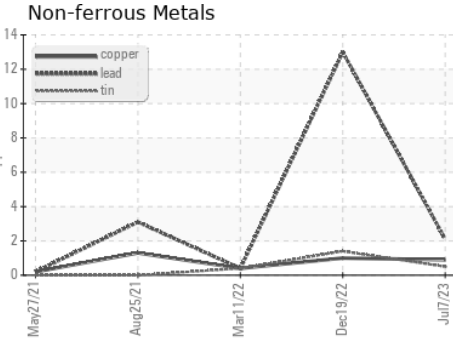
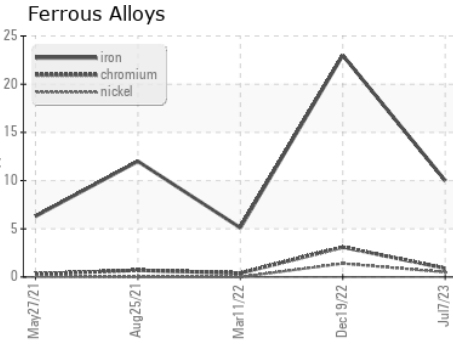
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.1	14.8	15.0	14.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0085401 **Received** : 11 Jul 2023
Lab Number : **05894826** **Diagnosed** : 11 Jul 2023
Unique Number : 10550636 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 882 - Gainesville
 5002 SW 41st Blvd
 Gainesville, FL
 US 32608
 Contact: ROBERT CLARK
 robert.clark@gflenv.com

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)