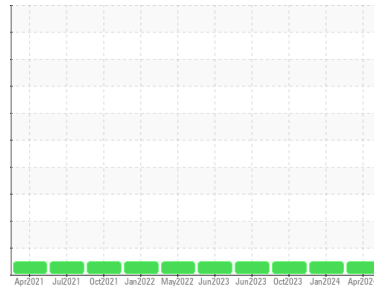




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
746001-361630

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			GFL0096017	GFL0095991	GFL0071766
Sample Date	Client Info			04 Apr 2024	23 Jan 2024	11 Oct 2023
Machine Age	hrs	Client Info		17063	16484	15770
Oil Age	hrs	Client Info		600	600	600
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

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	10	8	4
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	3	2	1
Lead	ppm	ASTM D5185m	>30	<1	<1	2
Copper	ppm	ASTM D5185m	>35	2	1	2
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	9	25	27
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	56	49	52
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	560	621	569	558
Calcium	ppm	ASTM D5185m	1510	1825	1586	1489
Phosphorus	ppm	ASTM D5185m	780	865	763	762
Zinc	ppm	ASTM D5185m	870	1138	984	960
Sulfur	ppm	ASTM D5185m	2040	3605	2499	2415

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	3	4	4
Sodium	ppm	ASTM D5185m		8	7	15
Potassium	ppm	ASTM D5185m	>20	<1	<1	2

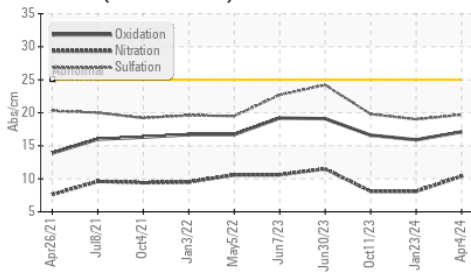
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	10.4	8.1	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	19.0	19.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	15.9	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	4.9	7.6	7.1

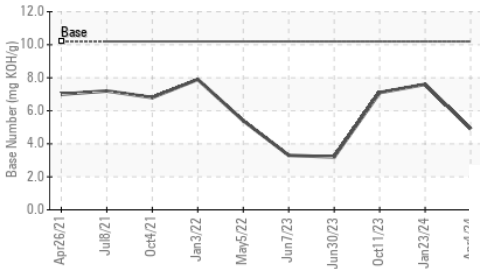


OIL ANALYSIS REPORT

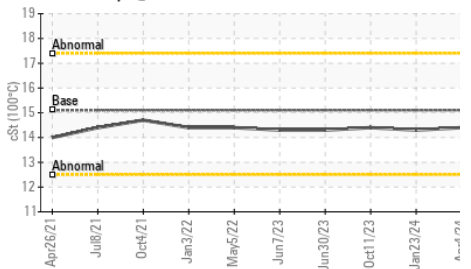
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

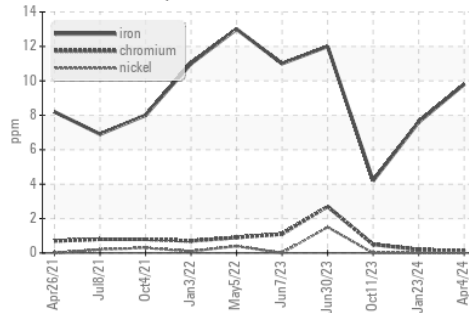


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

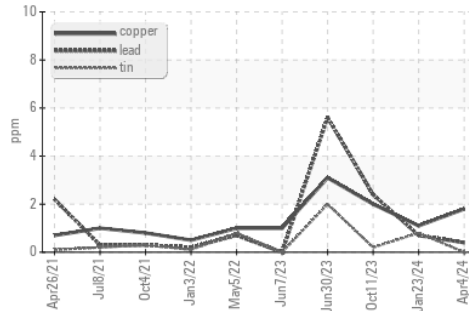
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.4	14.3

GRAPHS

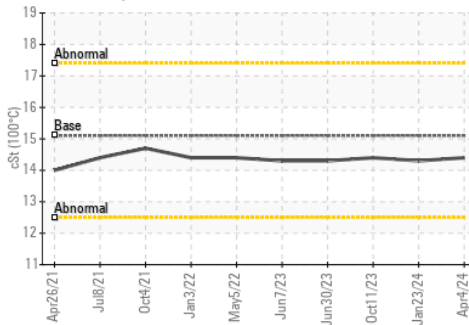
Ferrous Alloys



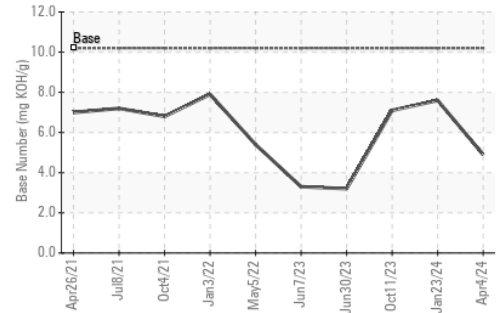
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0096017
 Lab Number : 06139698
 Unique Number : 10964506
 Test Package : FLEET

Received : 05 Apr 2024
 Tested : 06 Apr 2024
 Diagnosed : 06 Apr 2024 - Wes Davis

GFL Environmental - 883 - Orange City
 1378 South Volusia Ave
 Orange City, FL
 US 32763
 Contact: JEFF COOPERSMITH
 JCOOPERSMITH@GFLENV.COM
 T: (386)503-8468
 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)