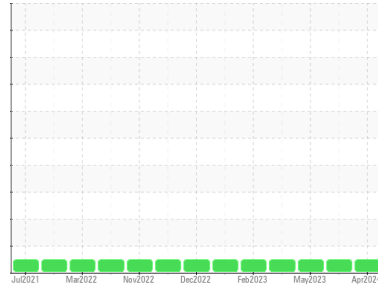




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
945028-260277

Component
Natural Gas Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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	GFL0106743	GFL0084637	GFL0078133
Sample Date	Client Info	17 Apr 2024	19 Oct 2023	03 May 2023
Machine Age	hrs	217	149698	56826
Oil Age	hrs	0	0	0
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	17	15	4
Chromium	ppm	ASTM D5185m >4	1	<1	<1
Nickel	ppm	ASTM D5185m >2	0	0	<1
Titanium	ppm	ASTM D5185m	<1	<1	0
Silver	ppm	ASTM D5185m >3	0	0	<1
Aluminum	ppm	ASTM D5185m >9	3	1	<1
Lead	ppm	ASTM D5185m >30	3	0	0
Copper	ppm	ASTM D5185m >35	4	6	<1
Tin	ppm	ASTM D5185m >4	2	0	0
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	2	37	38
Barium	ppm	ASTM D5185m 5	1	8	0
Molybdenum	ppm	ASTM D5185m 50	66	46	47
Manganese	ppm	ASTM D5185m 0	3	8	<1
Magnesium	ppm	ASTM D5185m 560	555	513	588
Calcium	ppm	ASTM D5185m 1510	1695	1453	1511
Phosphorus	ppm	ASTM D5185m 780	699	716	735
Zinc	ppm	ASTM D5185m 870	920	855	908
Sulfur	ppm	ASTM D5185m 2040	2728	2281	2865

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	10	24	4
Sodium	ppm	ASTM D5185m	26	9	2
Potassium	ppm	ASTM D5185m >20	10	6	<1

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	11.5	6.8	6.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.8	18.5	17.2

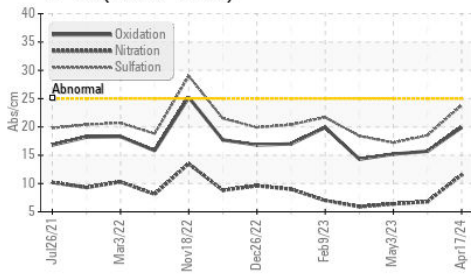
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.9	15.7	15.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	3.2	8.3	7.8

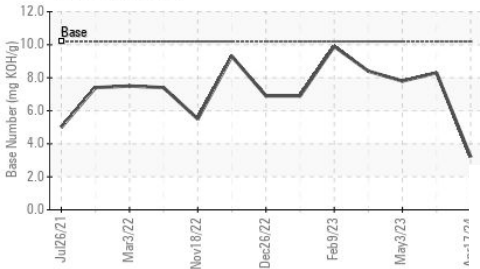


OIL ANALYSIS REPORT

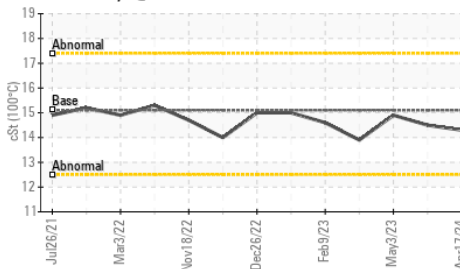
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

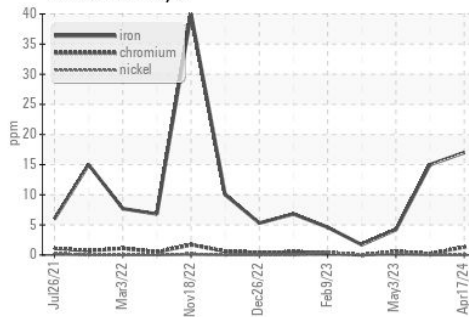


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

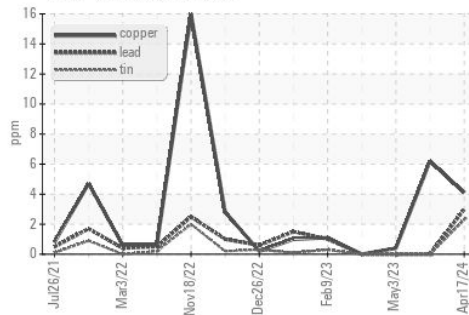
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.3	14.5

GRAPHS

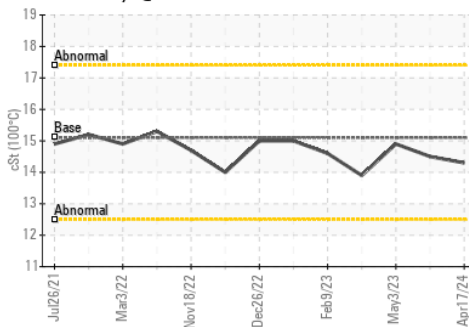
Ferrous Alloys



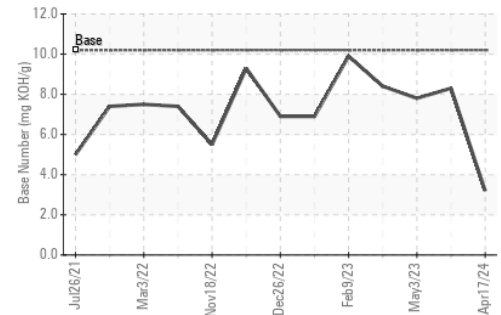
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0106743
 Lab Number : 06154068
 Unique Number : 10989491
 Test Package : FLEET

Received : 19 Apr 2024
 Tested : 22 Apr 2024
 Diagnosed : 22 Apr 2024 - Wes Davis

GFL Environmental - 856 - Houston South
 8515 Highway 6 South
 Houston, TX
 US 77083
 Contact: Jose Gonzalez
 jgonzalez2@gflenv.com

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)

T:
F: