



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
434025
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0125238	GFL0114452	GFL0114450
Sample Date		Client Info		13 Jun 2024	11 Mar 2024	05 Mar 2024
Machine Age	mls	Client Info		23867	720	684
Oil Age	mls	Client Info		0	720	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	19	10	8
Chromium	ppm	ASTM D5185m	>4	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	16	7	4
Lead	ppm	ASTM D5185m	>30	4	<1	<1
Copper	ppm	ASTM D5185m	>35	3	3	2
Tin	ppm	ASTM D5185m	>4	2	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

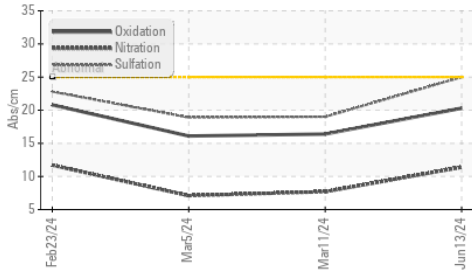
Silicon	ppm	ASTM D5185m	>+100	8	6	4
Potassium	ppm	ASTM D5185m	>20	54	24	15
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	11.4	7.7	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.0	19.0	18.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

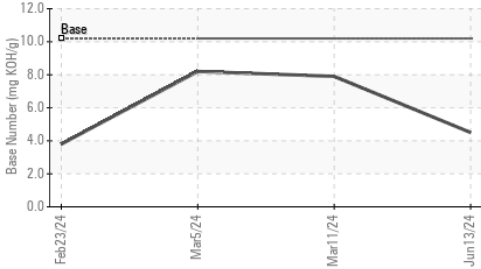
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		8	3	4
Boron	ppm	ASTM D5185m	50	10	26	28
Barium	ppm	ASTM D5185m	5	0	2	0
Molybdenum	ppm	ASTM D5185m	50	59	55	48
Manganese	ppm	ASTM D5185m	0	2	1	1
Magnesium	ppm	ASTM D5185m	560	689	595	615
Calcium	ppm	ASTM D5185m	1510	1770	1513	1534
Phosphorus	ppm	ASTM D5185m	780	879	699	822
Zinc	ppm	ASTM D5185m	870	1127	953	976
Sulfur	ppm	ASTM D5185m	2040	3154	2455	2986
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3	16.4	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	4.5	7.9	8.2
Visc @ 100°C	cSt	ASTM D445	15.1	15.0	14.5	14.6

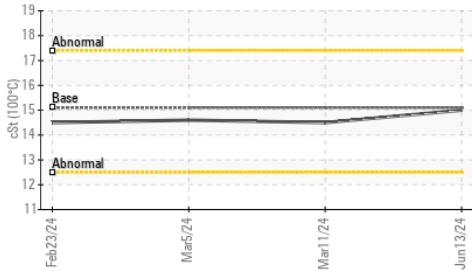
FT-IR (Direct Trend)



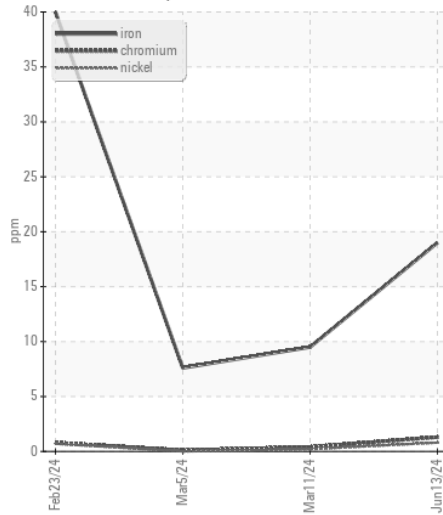
Base Number



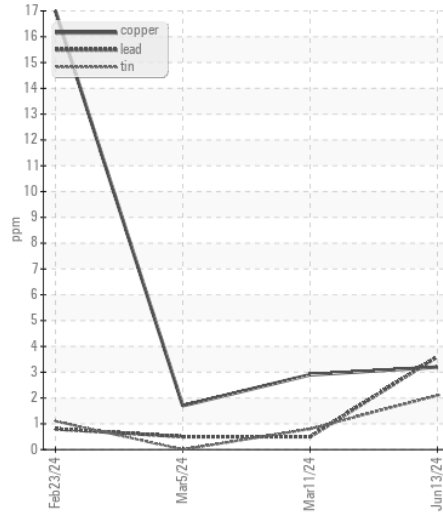
Viscosity @ 100°C



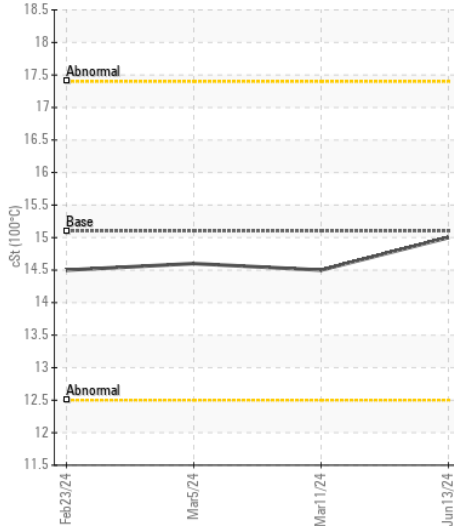
Ferrous Alloys



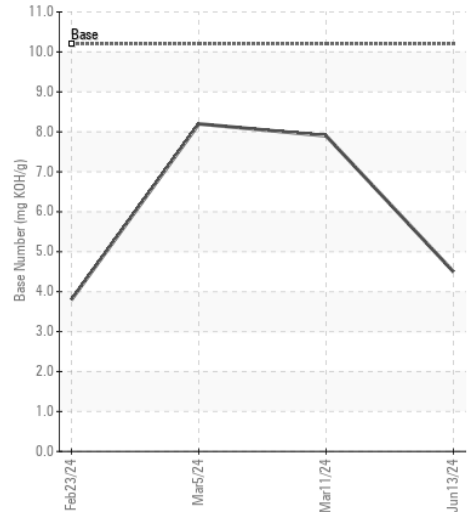
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0125238
Lab Number : 06217574
Unique Number : 11090438
Test Package : FLEET

Received : 21 Jun 2024
Tested : 24 Jun 2024
Diagnosed : 24 Jun 2024 - Wes Davis

GFL Environmental - 865 - East Mount Hauling
 7213 East Mount Houston Road
 Houston, TX
 US 77050

Contact: Saul Castillo
 saul.castillo@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: