



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
9167
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		GFL0106020	GFL0106133	GFL0078677
Sample Date		Client Info		16 May 2024	14 Feb 2024	23 Oct 2023
Machine Age	hrs	Client Info		16298	16081	15539
Oil Age	hrs	Client Info		0	542	654
Filter Age	hrs	Client Info		0	542	0
Oil Changed		Client Info		Not Changed	Changed	Changed
Filter Changed		Client Info		Not Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	15	19	▲ 53
Chromium	ppm	ASTM D5185m	>5	2	1	4
Nickel	ppm	ASTM D5185m	>4	<1	<1	1
Titanium	ppm	ASTM D5185m	>5	<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	5	6	22
Lead	ppm	ASTM D5185m	>40	<1	<1	1
Copper	ppm	ASTM D5185m	>150	1	1	6
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

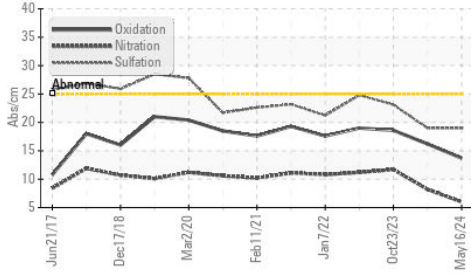
Silicon	ppm	ASTM D5185m	>25	18	5	7
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.4	0	0
Nitration	Abs/cm	*ASTM D7624	>20	6.0	8.2	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	19.0	23.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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

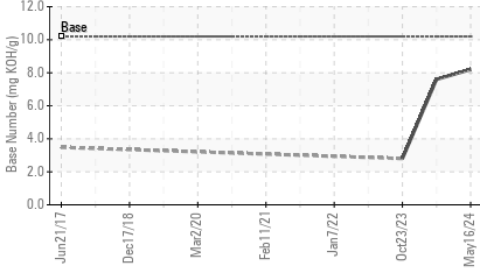
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	3	19
Boron	ppm	ASTM D5185m	50	68	20	3
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	79	46	54
Manganese	ppm	ASTM D5185m	0	<1	0	1
Magnesium	ppm	ASTM D5185m	560	556	635	528
Calcium	ppm	ASTM D5185m	1510	1271	1536	1567
Phosphorus	ppm	ASTM D5185m	780	628	793	645
Zinc	ppm	ASTM D5185m	870	824	977	957
Sulfur	ppm	ASTM D5185m	2040	2544	2421	2149
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	16.2	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	8.2	7.6	2.8
Visc @ 100°C	cSt	ASTM D445	15.1	13.7	14.7	14.8

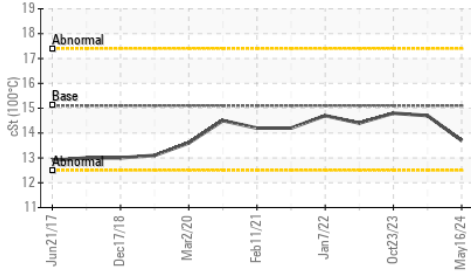
FT-IR (Direct Trend)



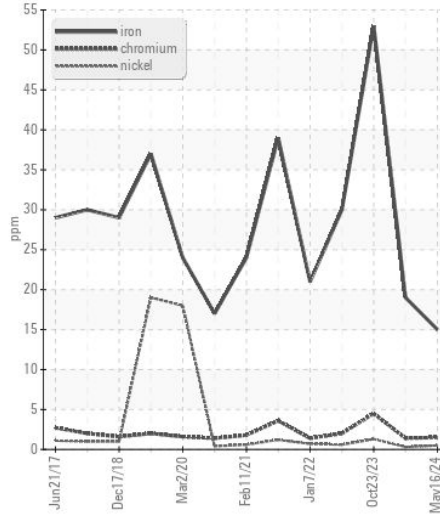
Base Number



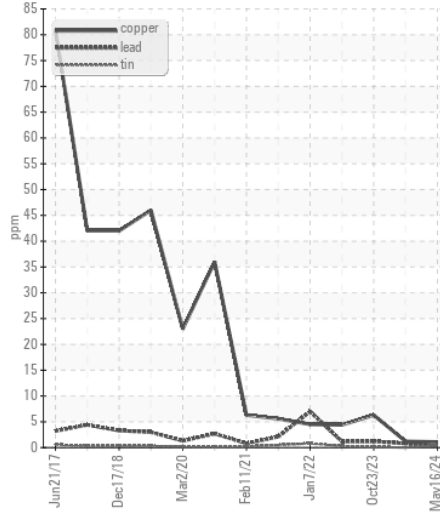
Viscosity @ 100°C



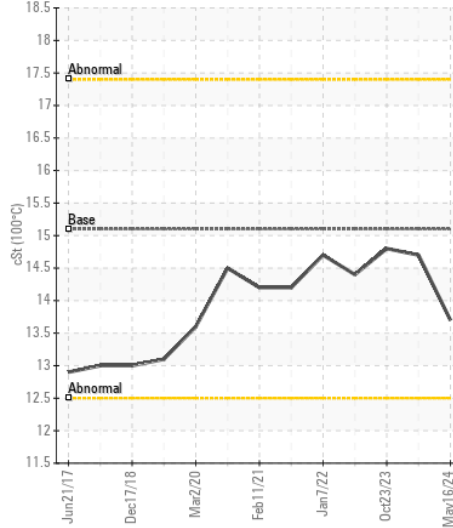
Ferrous Alloys



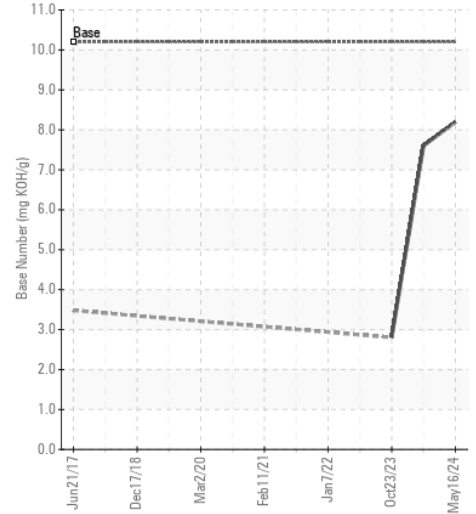
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0106020
Lab Number : 06188705
Unique Number : 11045457
Test Package : FLEET

Received : 23 May 2024
Tested : 24 May 2024
Diagnosed : 24 May 2024 - Wes Davis

GFL Environmental - 152 - Jacksonville
 7580 PHILIPS HWY
 Jacksonville, FL
 US 32256
 Contact: Chris Smith
 chris.smith@gflenv.com
 T: (904)252-0013
 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)