



WEAR **NORMAL**

CONTAMINATION **NORMAL**

FLUID CONDITION **NORMAL**

Area

(YA156313)

Machine Id

830009

Component

Natural Gas Engine

Fluid

PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL011035	GFL0098512	GFL0082229
Sample Date		Client Info		08 May 2024	15 Jan 2024	06 Jul 2023
Machine Age	hrs	Client Info		10504	9585	8239
Oil Age	hrs	Client Info		919	1346	1107
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	29	22	25
Chromium	ppm	ASTM D5185m	>4	3	3	5
Nickel	ppm	ASTM D5185m	>2	1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	4	2	3
Lead	ppm	ASTM D5185m	>30	1	2	6
Copper	ppm	ASTM D5185m	>35	1	<1	2
Tin	ppm	ASTM D5185m	>4	<1	<1	<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.

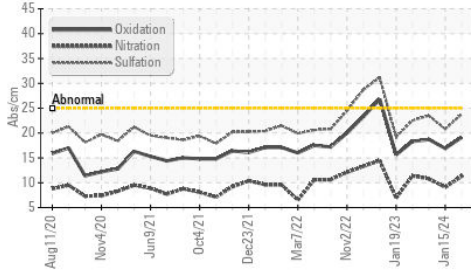
Silicon	ppm	ASTM D5185m	>+100	22	5	6
Potassium	ppm	ASTM D5185m	>20	2	<1	2
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.3	9.1	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	20.8	23.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	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

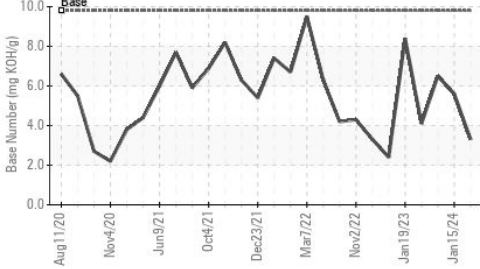
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		9	4	7
Boron	ppm	ASTM D5185m	0	4	22	20
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	61	56	59
Manganese	ppm	ASTM D5185m	0	<1	<1	2
Magnesium	ppm	ASTM D5185m	1010	546	597	639
Calcium	ppm	ASTM D5185m	1070	1601	1665	1740
Phosphorus	ppm	ASTM D5185m	1150	722	843	847
Zinc	ppm	ASTM D5185m	1270	952	990	1070
Sulfur	ppm	ASTM D5185m	2060	2511	2517	3130
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	16.9	18.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	3.3	5.6	6.5
Visc @ 100°C	cSt	ASTM D445	15.4	14.6	14.5	14.6

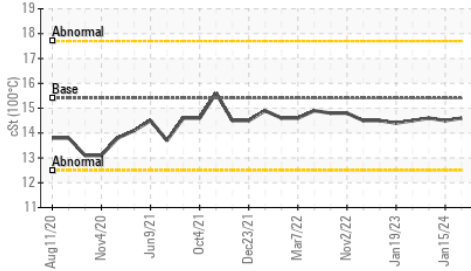
FT-IR (Direct Trend)



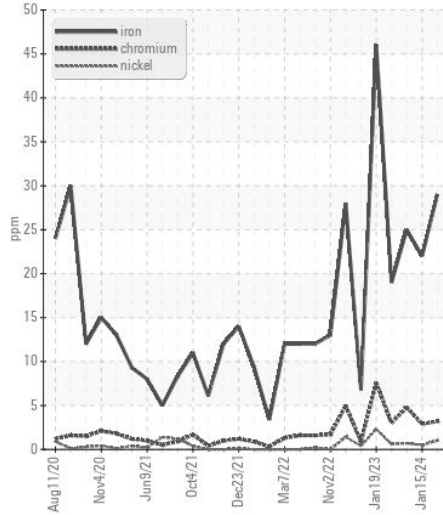
Base Number



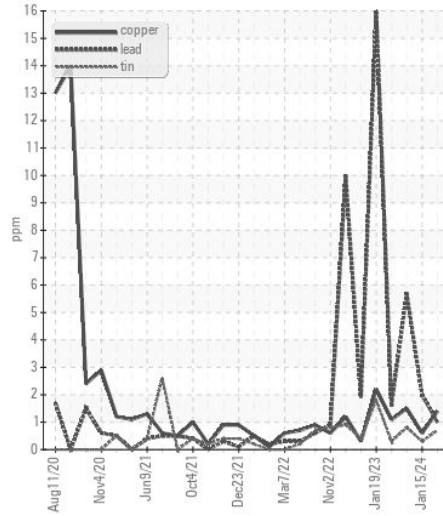
Viscosity @ 100°C



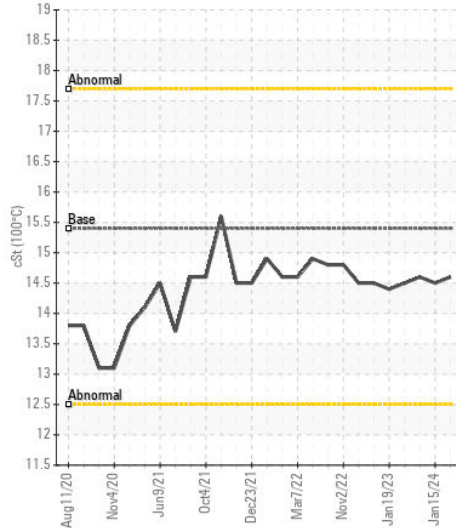
Ferrous Alloys



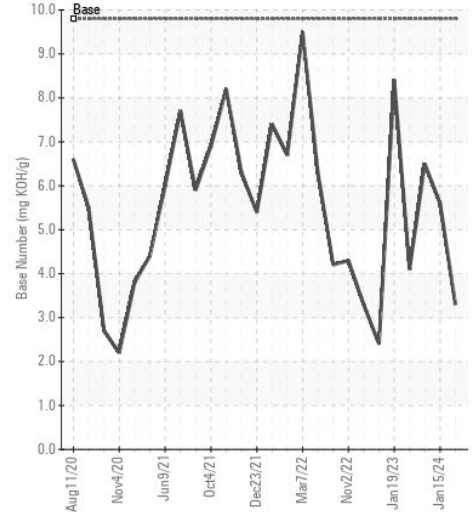
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0111035
Lab Number : 06174930
Unique Number : 11020983
Test Package : FLEET

Received : 09 May 2024
Tested : 10 May 2024
Diagnosed : 13 May 2024 - Sean Felton

GFL Environmental - 006 - Wilmington
 3618 US Highway 421 N
 Wilmington, NC
 US 28401

Contact: Eric Wood
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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)