



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
117M
Component
Diesel 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		GFL0100998	GFL0101066	GFL0092790
Sample Date		Client Info		17 May 2024	12 Feb 2024	31 Oct 2023
Machine Age	hrs	Client Info		15699	15699	15699
Oil Age	hrs	Client Info		14527	14527	14936
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	42	42	19
Chromium	ppm	ASTM D5185m	>20	2	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	6	3	3
Lead	ppm	ASTM D5185m	>40	2	6	2
Copper	ppm	ASTM D5185m	>330	5	3	2
Tin	ppm	ASTM D5185m	>15	1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
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.

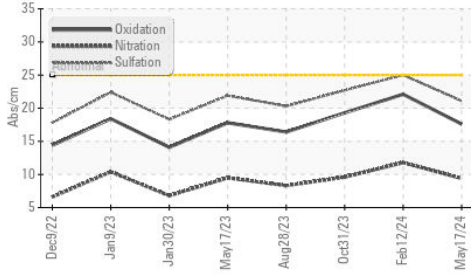
Silicon	ppm	ASTM D5185m	>25	15	7	5
Potassium	ppm	ASTM D5185m	>20	2	2	6
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.7	1.2	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.4	11.8	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	25.0	22.7
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

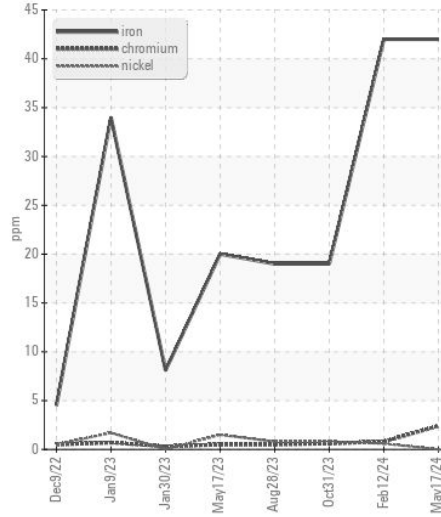
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	8	7
Boron	ppm	ASTM D5185m	0	3	1	0
Barium	ppm	ASTM D5185m	0	0	0	4
Molybdenum	ppm	ASTM D5185m	60	64	59	55
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	978	1011	811
Calcium	ppm	ASTM D5185m	1070	1101	1074	979
Phosphorus	ppm	ASTM D5185m	1150	1050	1004	685
Zinc	ppm	ASTM D5185m	1270	1281	1294	1125
Sulfur	ppm	ASTM D5185m	2060	3051	2505	2042
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.6	22.1	19.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.9	4.5	5.6
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	13.9	13.5

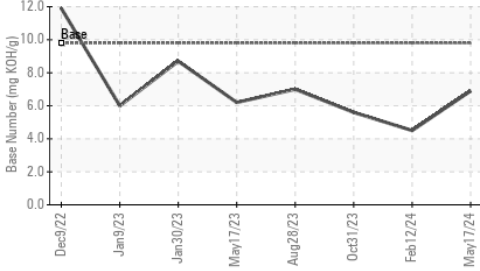
FT-IR (Direct Trend)



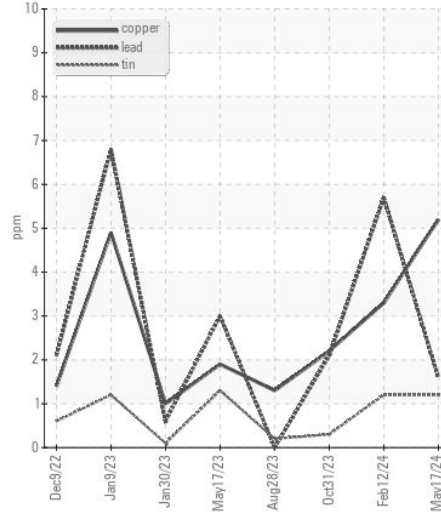
Ferrous Alloys



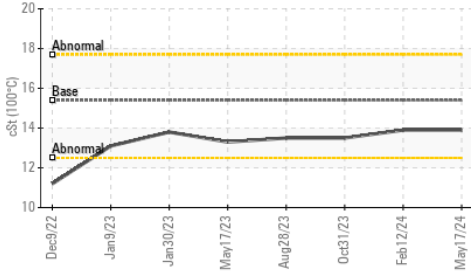
Base Number



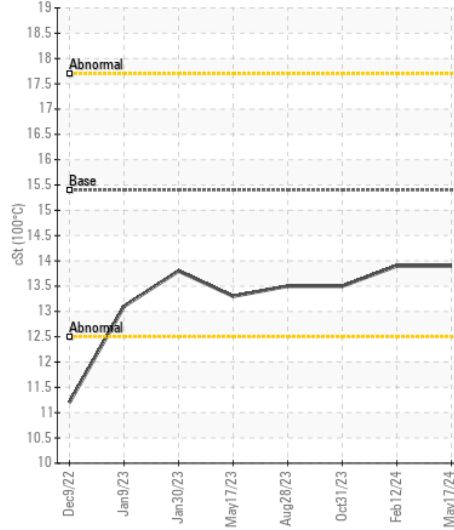
Non-ferrous Metals



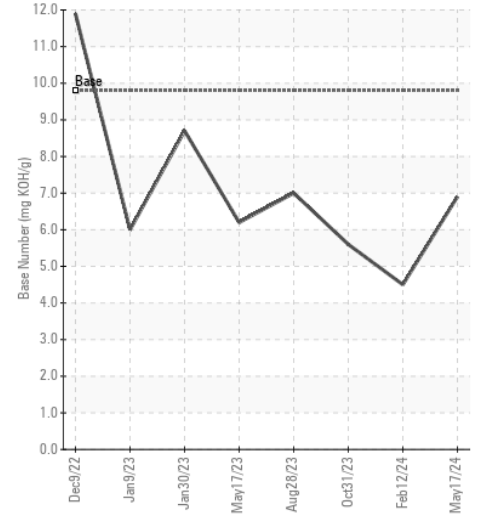
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0100998 **Received** : 23 May 2024
Lab Number : 06188904 **Tested** : 24 May 2024
Unique Number : 11045656 **Diagnosed** : 24 May 2024 - Wes Davis
Test Package : FLEET

GFL Environmental - 455 - Flint
 2051 W. Bristol Rd
 Flint Township, MI
 US 48507
 Contact: MARK WOMBLE
 mwomble@gflenv.com
 T: (586)825-9514
 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)