FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	MARGINAL

Area
(BC57481)
Machine Id
924011
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Actual hours 2805 actual hours 2805. Services completed)

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

CONTAMINATION

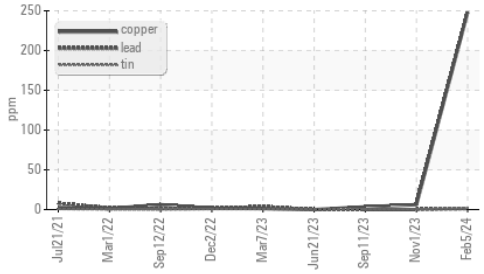
Light fuel dilution occurring.

FLUID CONDITION

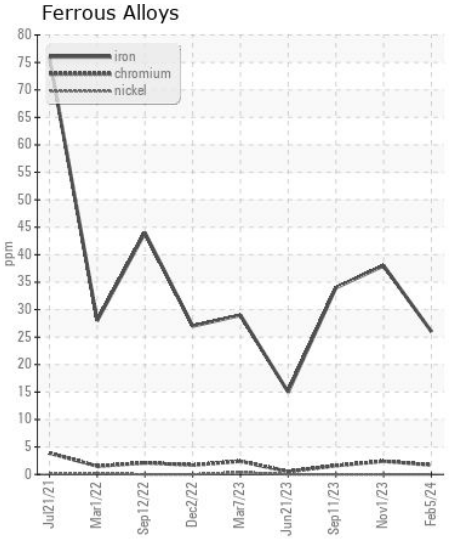
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0094884	GFL0094846	GFL0088276
Sample Date		Client Info		05 Feb 2024	01 Nov 2023	11 Sep 2023
Machine Age	hrs	Client Info		2805	2177	1856
Oil Age	hrs	Client Info		535	484	163
Filter Age	hrs	Client Info		535	484	163
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>75	26	38	34
Chromium	ppm	ASTM D5185m	>5	2	2	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	7	11	6
Lead	ppm	ASTM D5185m	>25	1	0	0
Copper	ppm	ASTM D5185m	>100	▲ 248	6	3
Tin	ppm	ASTM D5185m	>4	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	21	14
Potassium	ppm	ASTM D5185m	>20	9	20	12
Fuel	%	ASTM D3524	>3.0	▲ 2.0	<1.0	1.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.5	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.9	8.7	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	21.5	21.2
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
Sodium	ppm	ASTM D5185m		6	14	18
Boron	ppm	ASTM D5185m	0	6	96	257
Barium	ppm	ASTM D5185m	0	0	<1	3
Molybdenum	ppm	ASTM D5185m	60	63	85	99
Manganese	ppm	ASTM D5185m	0	1	4	5
Magnesium	ppm	ASTM D5185m	1010	934	795	697
Calcium	ppm	ASTM D5185m	1070	1080	1292	1428
Phosphorus	ppm	ASTM D5185m	1150	1010	873	709
Zinc	ppm	ASTM D5185m	1270	1233	1038	869
Sulfur	ppm	ASTM D5185m	2060	2850	2718	2929
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3	15.9	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.1	8.0	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	12.6	12.9

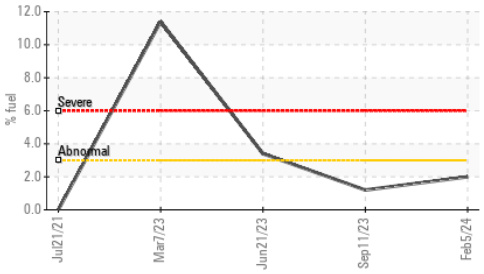
Non-ferrous Metals



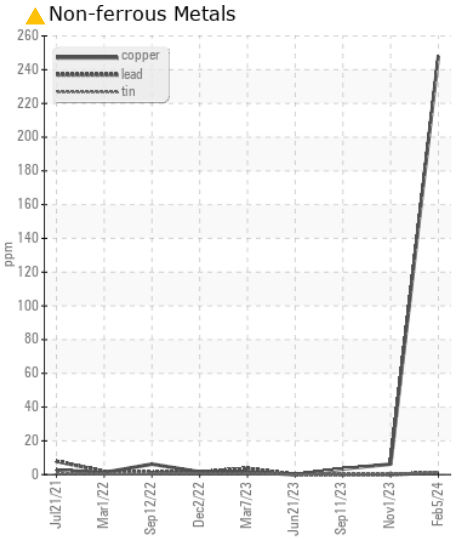
Ferrous Alloys



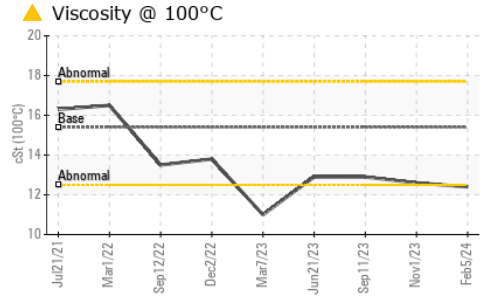
Fuel Dilution



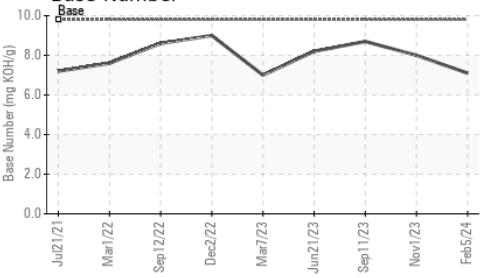
Non-ferrous Metals



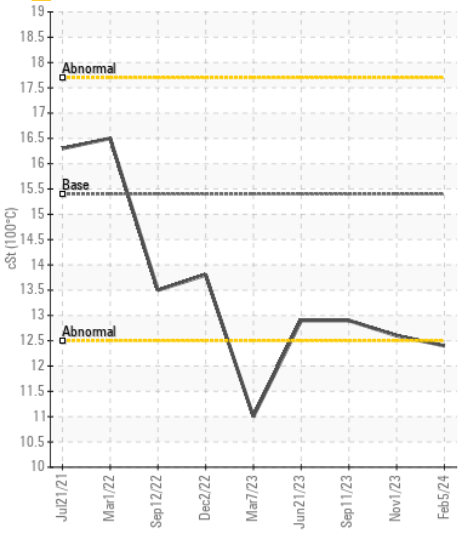
Viscosity @ 100°C



Base Number



Viscosity @ 100°C



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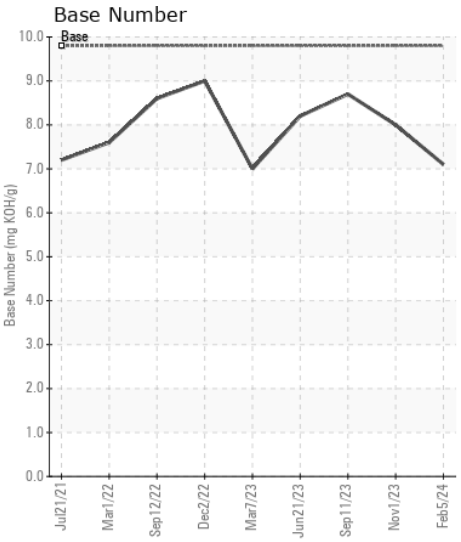

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0094884
Lab Number : 06084173
Unique Number : 10871618
Test Package : FLEET (Additional Tests: FUELDILUTION, PercentFuel)

Received : 08 Feb 2024
Tested : 14 Feb 2024
Diagnosed : 14 Feb 2024 - Jonathan Hester

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)

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