FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
921015
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

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

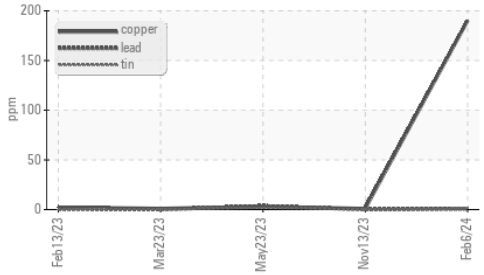
Sodium and/or potassium levels are high.

FLUID CONDITION

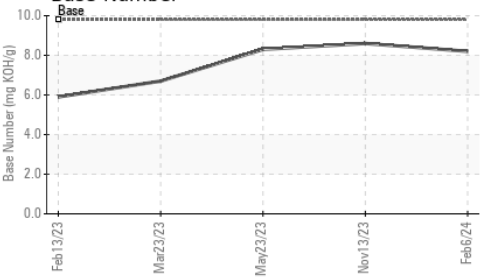
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0108407	GFL0098422	GFL0084556
Sample Date		Client Info		06 Feb 2024	13 Nov 2023	23 May 2023
Machine Age	hrs	Client Info		29597	27565	378369
Oil Age	hrs	Client Info		29597	27565	0
Filter Age	hrs	Client Info		0	27565	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>120	6	7	14
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	1	7
Lead	ppm	ASTM D5185m	>40	<1	0	4
Copper	ppm	ASTM D5185m	>330	▲ 190	1	3
Tin	ppm	ASTM D5185m	>15	<1	0	2
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	9	4	4
Potassium	ppm	ASTM D5185m	>20	▲ 48	2	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.1	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.7	7.1	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	18.6	19.5
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	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		▲ 473	2	3
Boron	ppm	ASTM D5185m	0	11	0	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	82	56	63
Manganese	ppm	ASTM D5185m	0	1	0	2
Magnesium	ppm	ASTM D5185m	1010	954	879	1030
Calcium	ppm	ASTM D5185m	1070	995	1005	1116
Phosphorus	ppm	ASTM D5185m	1150	946	922	1035
Zinc	ppm	ASTM D5185m	1270	1236	1140	1305
Sulfur	ppm	ASTM D5185m	2060	2651	3212	3604
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	14.6	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.2	8.6	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	12.8	13.8

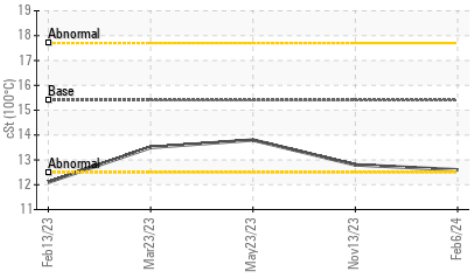
Non-ferrous Metals



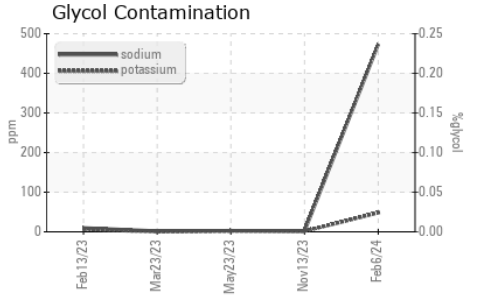
Base Number



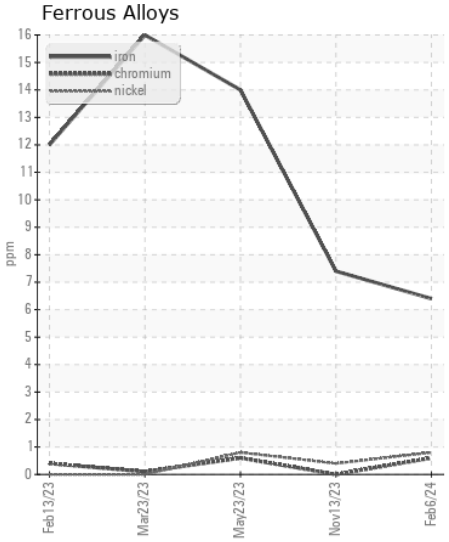
Viscosity @ 100°C



Glycol Contamination



Ferrous Alloys



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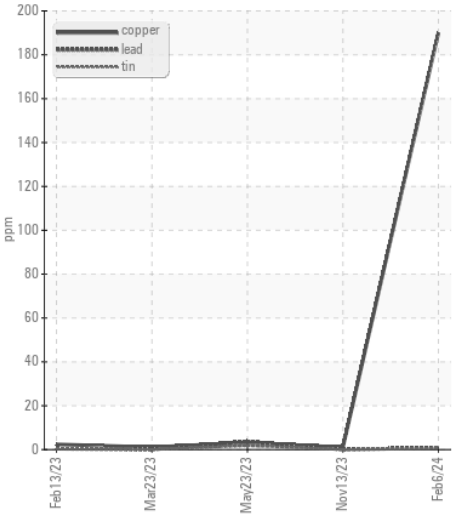

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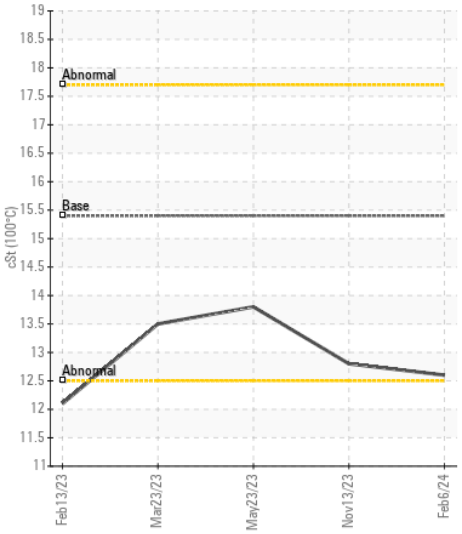

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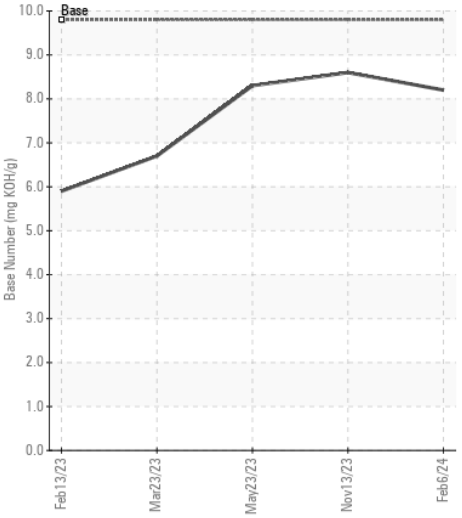

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108407
Lab Number : 06085250
Unique Number : 10872695
Test Package : FLEET (Additional Tests: Glycol)

Received : 09 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 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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