FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
911017
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (46 QTS)

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

All component wear rates are normal.

CONTAMINATION

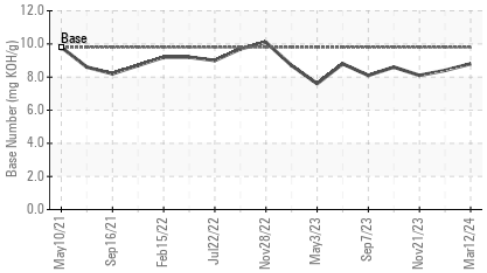
Sodium and/or potassium levels are high.

FLUID CONDITION

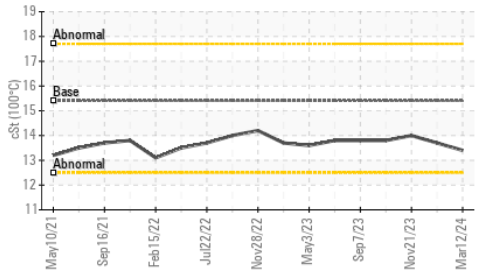
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110345	GFL0102767	GFL0090487
Sample Date		Client Info		12 Mar 2024	02 Jan 2024	21 Nov 2023
Machine Age	hrs	Client Info		9561	8969	8617
Oil Age	hrs	Client Info		592	580	101
Filter Age	hrs	Client Info		592	580	101
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	7	5	0
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	<1	1
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	0	<1	0
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	3	3	3
Potassium	ppm	ASTM D5185m	>20	▲ 55	10	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.1	7.2	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	19.1	17.4
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		▲ 233	43	13
Boron	ppm	ASTM D5185m	0	6	4	7
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	71	58	53
Manganese	ppm	ASTM D5185m	0	0	0	0
Magnesium	ppm	ASTM D5185m	1010	982	865	838
Calcium	ppm	ASTM D5185m	1070	1188	1043	1010
Phosphorus	ppm	ASTM D5185m	1150	1110	1022	1053
Zinc	ppm	ASTM D5185m	1270	1376	1160	1159
Sulfur	ppm	ASTM D5185m	2060	3913	2994	3065
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	13.9	12.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.8	8.4	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.7	14.0

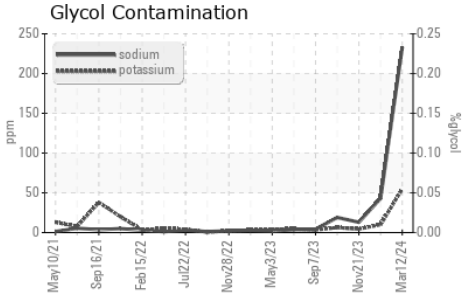
Base Number



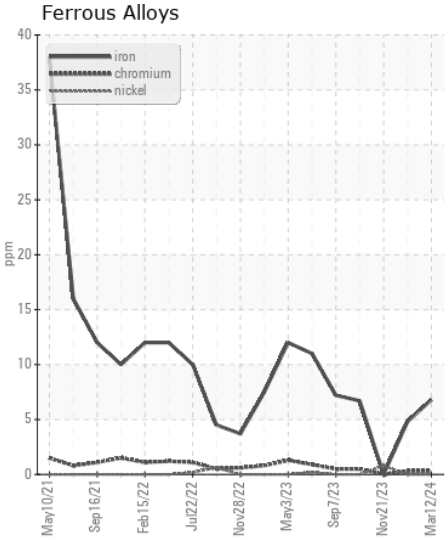
Viscosity @ 100°C



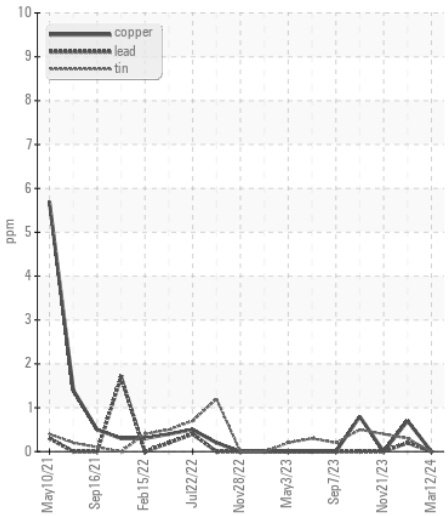
Glycol Contamination



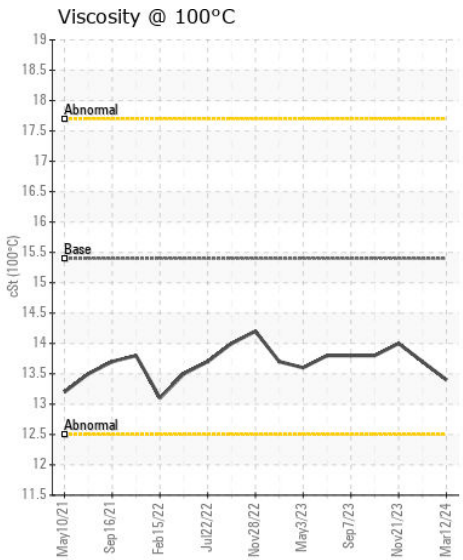
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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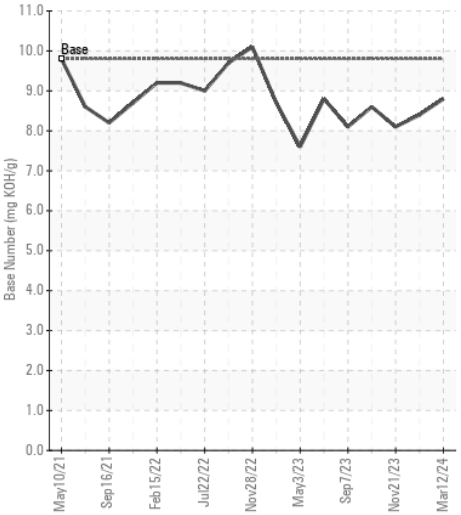

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110345
Lab Number : 06123018
Unique Number : 10937169
Test Package : FLEET (Additional Tests: Glycol)

Received : 19 Mar 2024
Tested : 22 Mar 2024
Diagnosed : 22 Mar 2024 - Jonathan Hester

GFL Environmental - 622 - Traverse City Hauling
160 Hughes Dr
Traverse City, MI
US 49686
Contact: GARY BREWER

T:
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)