FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION

Machine Id
729091
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil 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

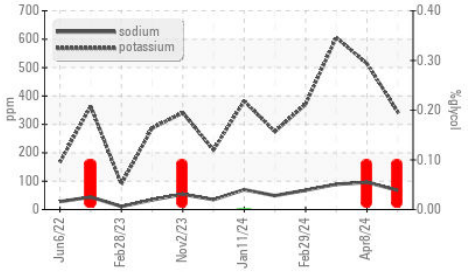
Test for glycol is positive. There is a high concentration of glycol present in the oil.

FLUID CONDITION

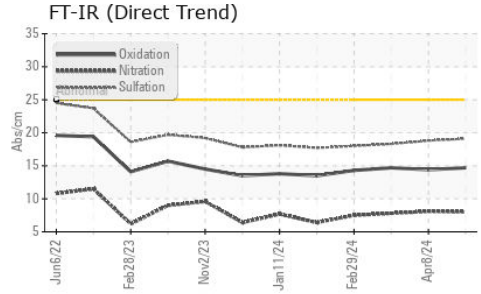
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**GFL0122004**	GFL0111881	GFL0111891
Sample Date		Client Info		**25 Jun 2024**	08 Apr 2024	20 Mar 2024
Machine Age	hrs	Client Info		**16109**	15476	15330
Oil Age	hrs	Client Info		**16109**	15476	15330
Filter Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Filter Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**SEVERE**	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>100	**28**	60	63
Chromium	ppm	ASTM D5185m	>20	**1**	2	2
Nickel	ppm	ASTM D5185m	>4	**<1**	2	2
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	**6**	7	9
Lead	ppm	ASTM D5185m	>40	**0**	<1	3
Copper	ppm	ASTM D5185m	>330	**7**	10	11
Tin	ppm	ASTM D5185m	>15	**0**	1	2
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**7**	9	13
Potassium	ppm	ASTM D5185m	>20	▲ **344**	▲ 514	▲ 606
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol	%	*ASTM D2982		▲ **0.10**	▲ 0.10	NEG
Soot %	%	*ASTM D7844	>3	**0.2**	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**8.0**	8.1	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.1**	18.8	18.3
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		● **68**	● 96	▲ 89
Boron	ppm	ASTM D5185m	0	**4**	0	4
Barium	ppm	ASTM D5185m	0	**<1**	<1	2
Molybdenum	ppm	ASTM D5185m	60	**117**	141	137
Manganese	ppm	ASTM D5185m	0	**<1**	1	1
Magnesium	ppm	ASTM D5185m	1010	**958**	936	932
Calcium	ppm	ASTM D5185m	1070	**1168**	1126	1142
Phosphorus	ppm	ASTM D5185m	1150	**1133**	1095	1289
Zinc	ppm	ASTM D5185m	1270	**1377**	1273	1267
Sulfur	ppm	ASTM D5185m	2060	**3670**	3378	3492
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.7**	14.4	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**8.8**	6.9	8.9
Visc @ 100°C	cSt	ASTM D445	15.4	**14.1**	13.7	13.8

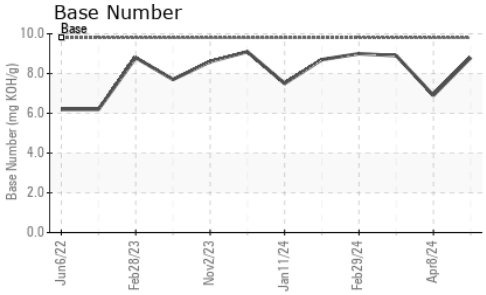
Glycol Contamination



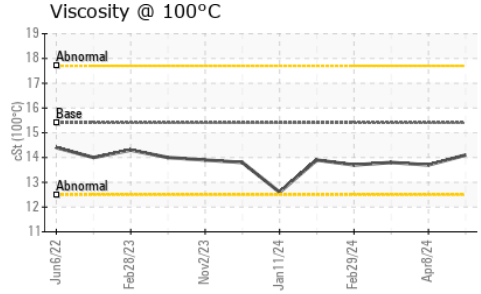
FT-IR (Direct Trend)



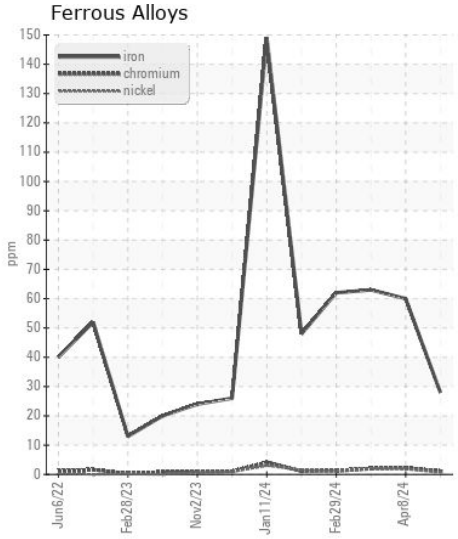
Base Number



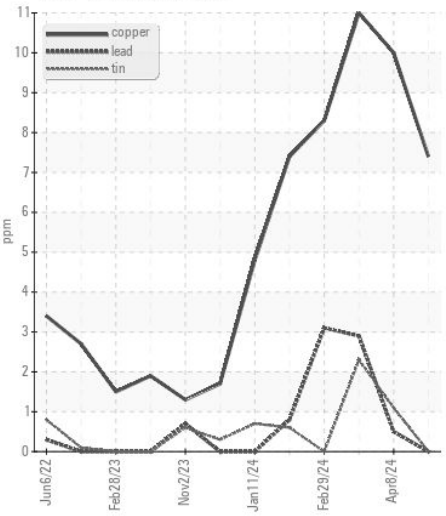
Viscosity @ 100°C



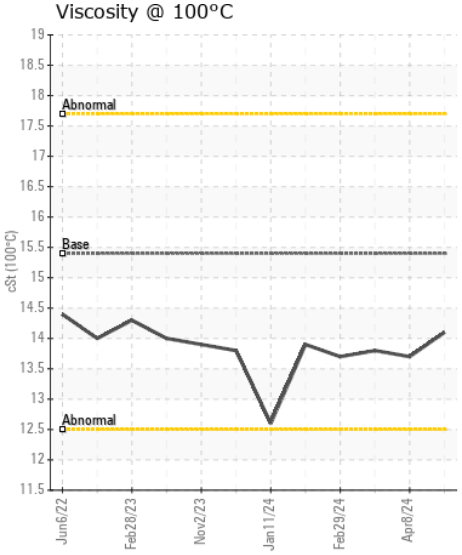
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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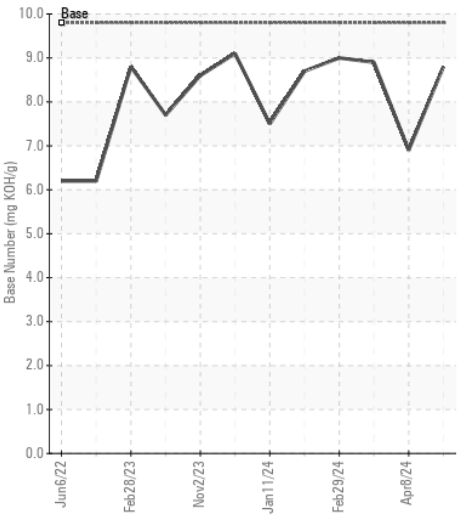

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122004
Lab Number : 06222166
Unique Number : 11100363
Test Package : FLEET

Received : 27 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 28 Jun 2024 - Wes Davis

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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