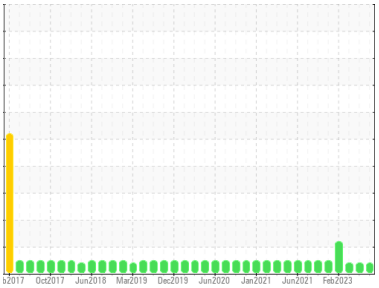
PROBLEM SUMMARY

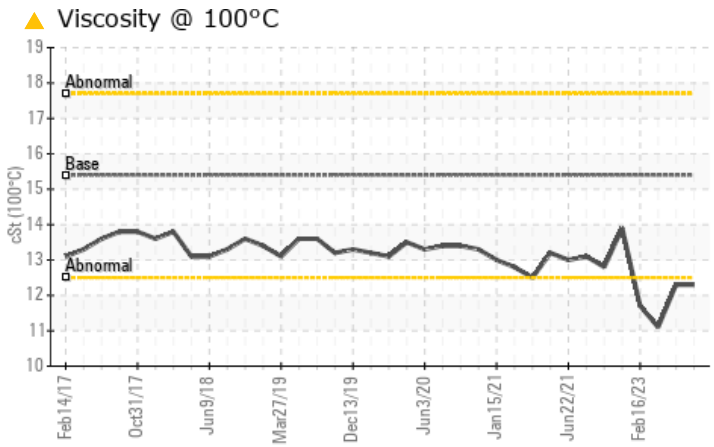
Sample Rating Trend



VISCOSITY

Machine Id
Cummins 3742
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	ATTENTION	ATTENTION
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **12.3**	▲ 12.3	▲ 11.1

Customer Id: GFL009
Sample No.: GFL0086217
Lab Number: 05952068
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

07 Sep 2023 Diag: Don Baldridge

VISCOSITY

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

08 Mar 2023 Diag: Don Baldridge

VISCOSITY

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

16 Feb 2023 Diag: Jonathan Hester

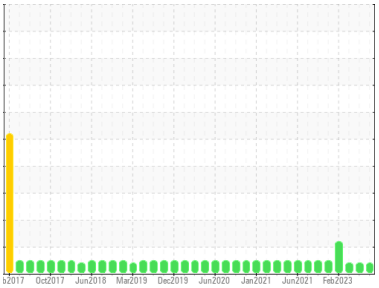
FUEL

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. Light fuel dilution occurring. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
Cummins 3742
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0086217**	GFL0086210	GFL0057598
Sample Date		Client Info		**12 Sep 2023**	07 Sep 2023	08 Mar 2023
Machine Age	hrs	Client Info		**15742**	16867	15742
Oil Age	hrs	Client Info		**16898**	16867	15742
Oil Changed		Client Info		**N/A**	N/A	Changed
Sample Status				**ATTENTION**	ATTENTION	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>165	**23**	20	11
Chromium	ppm	ASTM D5185m	>5	**2**	2	<1
Nickel	ppm	ASTM D5185m	>4	**0**	0	1
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	1
Aluminum	ppm	ASTM D5185m	>20	**4**	<1	5
Lead	ppm	ASTM D5185m	>150	**6**	6	<1
Copper	ppm	ASTM D5185m	>90	**2**	1	1
Tin	ppm	ASTM D5185m	>5	**<1**	1	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**7**	8	50
Barium	ppm	ASTM D5185m	0	**0**	0	<1
Molybdenum	ppm	ASTM D5185m	60	**66**	63	56
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**869**	841	642
Calcium	ppm	ASTM D5185m	1070	**1127**	1120	908
Phosphorus	ppm	ASTM D5185m	1150	**983**	958	822
Zinc	ppm	ASTM D5185m	1270	**1168**	1179	979
Sulfur	ppm	ASTM D5185m	2060	**3131**	3193	2623

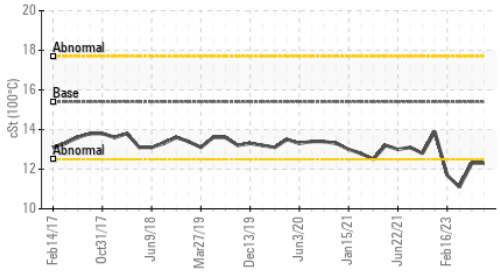
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	**11**	10	8
Sodium	ppm	ASTM D5185m		**3**	3	44
Potassium	ppm	ASTM D5185m	>20	**0**	4	21

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>7.5	**0.8**	0.7	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**9.6**	9.7	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.0**	20.8	17.6

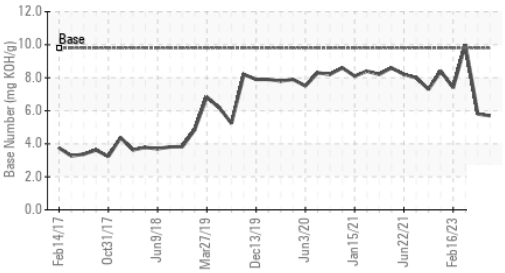
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**16.4**	16.2	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**5.7**	5.8	10.0

OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



Base Number

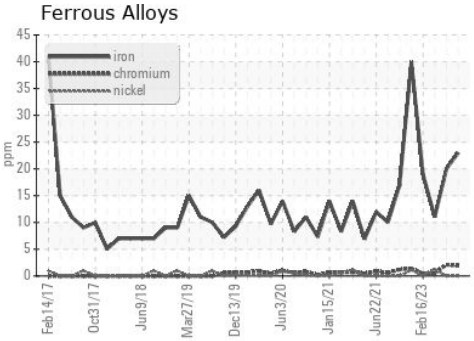


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

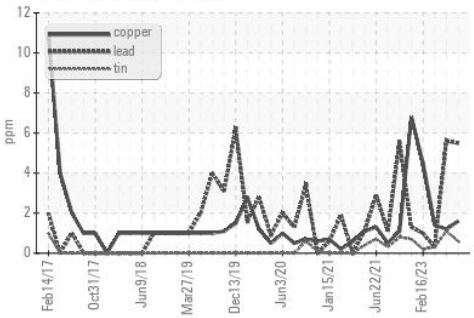
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **12.3**	▲ 12.3	▲ 11.1

GRAPHS

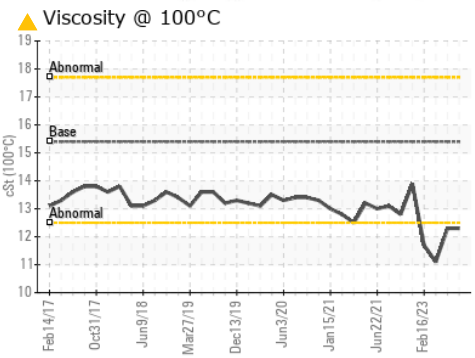
Ferrous Alloys



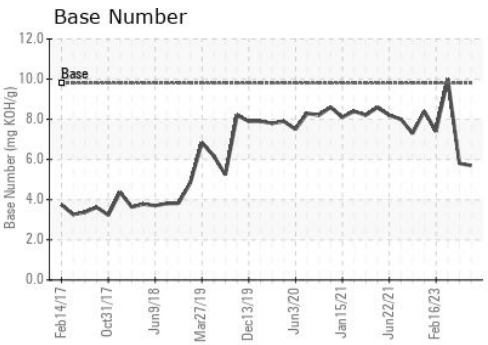
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0086217
Lab Number : 05952068
Unique Number : 10648027
Test Package : FLEET

Received : 14 Sep 2023
Diagnosed : 19 Sep 2023
Diagnostician : 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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