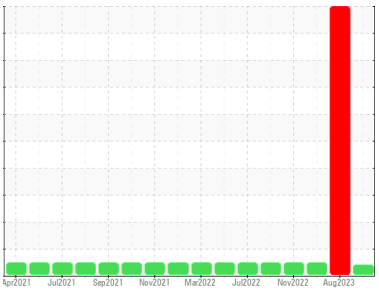
PROBLEM SUMMARY

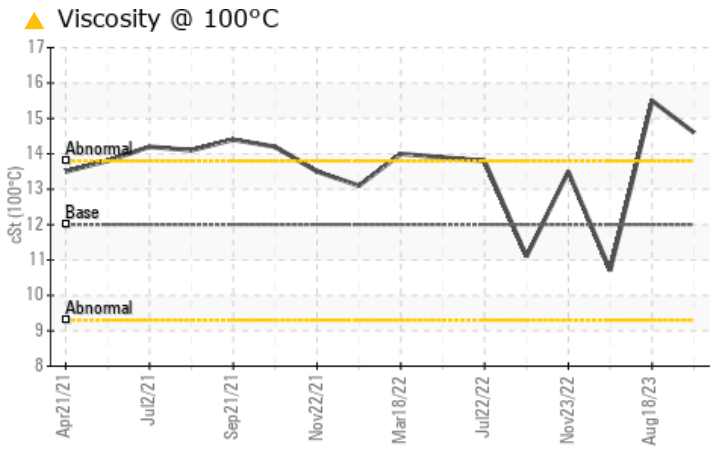
Sample Rating Trend



VISCOSITY

Machine Id
411034
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (12 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	SEVERE	NORMAL
Visc @ 100°C	cSt	ASTM D445	12.00	▲ **14.6**	▲ 15.5	10.7

Customer Id: GFL102
Sample No.: GFL0072161
Lab Number: 05952464
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

18 Aug 2023 Diag: Jonathan Hester

GLYCOL

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. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.Bearing and/or bushing wear is indicated. Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil. There is an abnormal amount of solids and carbon present in the oil. The oil viscosity is higher than normal. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.

view report

25 Apr 2023 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor.Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

23 Nov 2022 Diag: Wes Davis

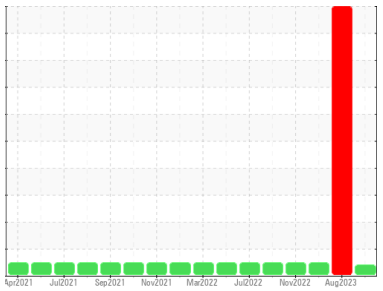
NORMAL

Resample at the next service interval to monitor.Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
411034
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (12 GAL)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0072161**	GFL0073339	GFL0073321
Sample Date		Client Info		**14 Sep 2023**	18 Aug 2023	25 Apr 2023
Machine Age	hrs	Client Info		**0**	600	600
Oil Age	hrs	Client Info		**0**	600	600
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**ATTENTION**	SEVERE	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	**18**	87	15
Chromium	ppm	ASTM D5185m	>20	**1**	4	1
Nickel	ppm	ASTM D5185m	>2	**<1**	<1	<1
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**5**	7	4
Lead	ppm	ASTM D5185m	>40	**<1**	▲ 105	0
Copper	ppm	ASTM D5185m	>330	**<1**	8	<1
Tin	ppm	ASTM D5185m	>15	**1**	2	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	**5**	22	8
Barium	ppm	ASTM D5185m	0	**44**	0	0
Molybdenum	ppm	ASTM D5185m	50	**59**	149	85
Manganese	ppm	ASTM D5185m	0	**1**	1	<1
Magnesium	ppm	ASTM D5185m	950	**853**	843	666
Calcium	ppm	ASTM D5185m	1050	**963**	1327	1213
Phosphorus	ppm	ASTM D5185m	995	**901**	906	885
Zinc	ppm	ASTM D5185m	1180	**1134**	1245	1060
Sulfur	ppm	ASTM D5185m	2600	**3058**	2963	3706

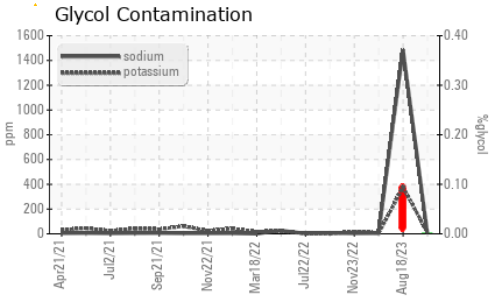
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**4**	26	0
Sodium	ppm	ASTM D5185m		**5**	▲ 1487	4
Potassium	ppm	ASTM D5185m	>20	**12**	▲ 375	8
Glycol	%	*ASTM D2982		**0.0**	⬢ 0.10	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	**1.6**	▲ 4.3	1.5
Nitration	Abs/cm	*ASTM D7624	>20	**9.0**	23.1	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.1**	41.7	19.4

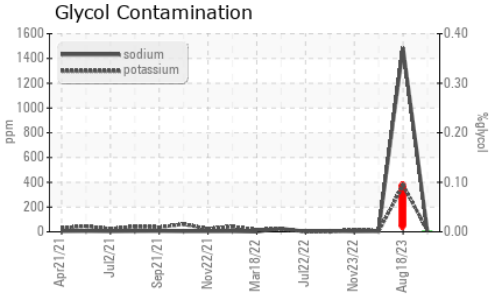
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.6**	35.6	12.9
Base Number (BN)	mg KOH/g	ASTM D2896		**8.1**	▲ 0.0	7.0

OIL ANALYSIS REPORT

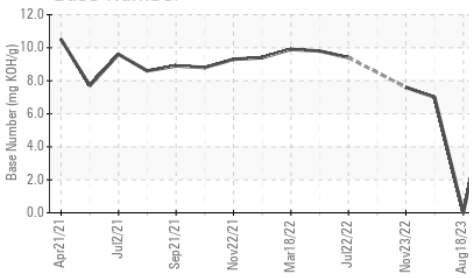
Glycol Contamination



Glycol Contamination



Base Number

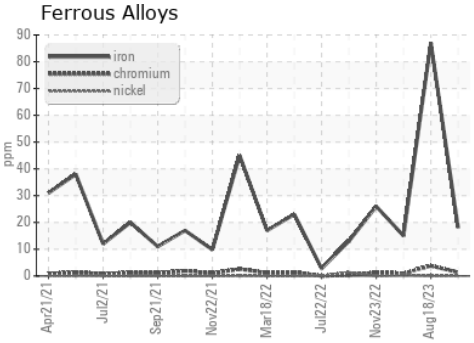


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

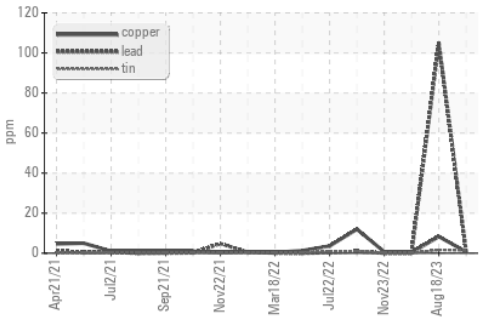
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	▲ **14.6**	▲ 15.5	10.7

GRAPHS

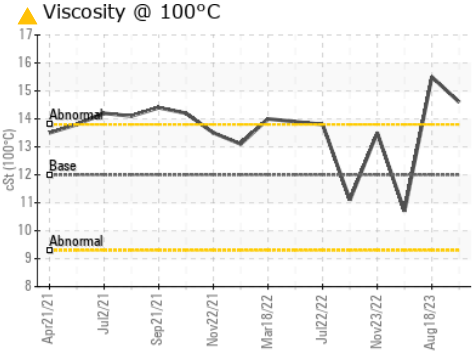
Ferrous Alloys



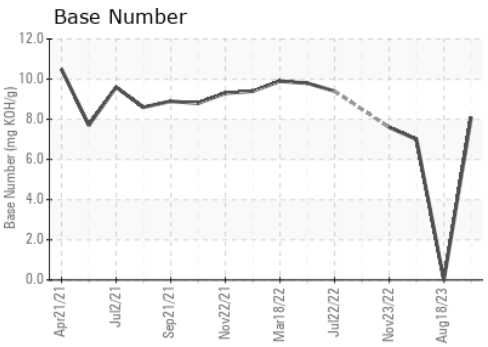
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0072161
Lab Number : 05952464
Unique Number : 10648423
Test Package : FLEET

Received : 15 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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