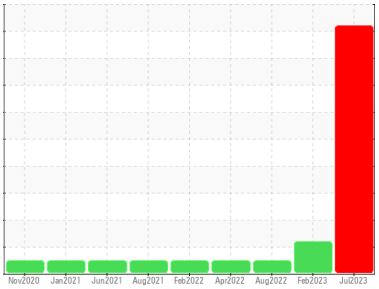
PROBLEM SUMMARY

Sample Rating Trend

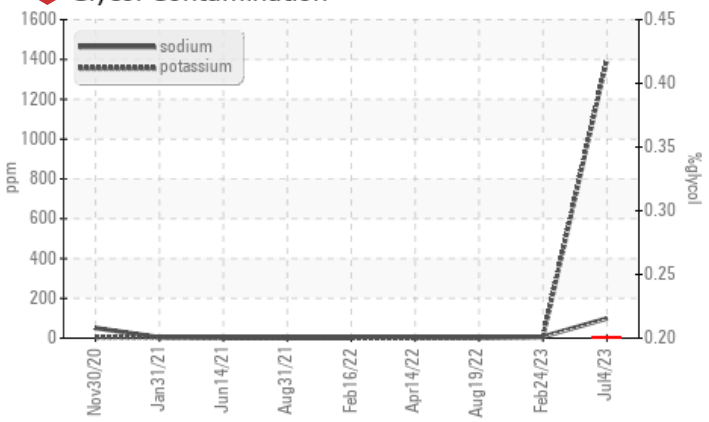


GLYCOL

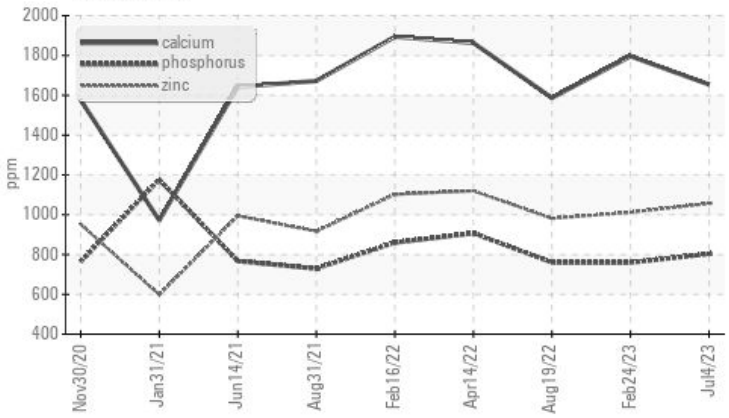
Machine Id
910027
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

COMPONENT CONDITION SUMMARY

Glycol Contamination



Additives



RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	NORMAL
Magnesium	ppm	ASTM D5185m	1010	▲ **625**	598	554
Calcium	ppm	ASTM D5185m	1070	▲ **1654**	1796	1587
Sodium	ppm	ASTM D5185m		▲ **99**	7	4
Potassium	ppm	ASTM D5185m	>20	▲ **1401**	6	2
Glycol	%	*ASTM D2982		● **0.20**	NEG	NEG

Customer Id: GFL018
Sample No.: GFL0066870
Lab Number: 05891118
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

24 Feb 2023 Diag: Don Baldridge

DEGRADATION

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 BN level is low. The condition of the oil is acceptable for the time in service.

view report

19 Aug 2022 Diag: Don Baldridge

NORMAL

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

14 Apr 2022 Diag: Wes Davis

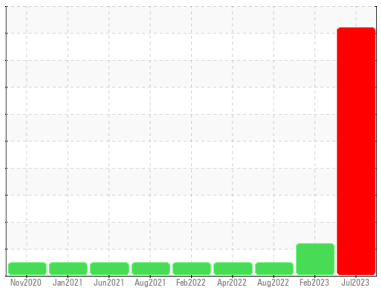
NORMAL

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 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



GLYCOL

Machine Id
910027
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. 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

Additive levels indicate the addition of a different brand, or type of oil. 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.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0066870**	GFL0066880	GFL0055855
Sample Date		Client Info		**04 Jul 2023**	24 Feb 2023	19 Aug 2022
Machine Age	hrs	Client Info		**2632**	2632	2632
Oil Age	hrs	Client Info		**2632**	2632	150
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>90	**17**	8	9
Chromium	ppm	ASTM D5185m	>20	**4**	1	1
Nickel	ppm	ASTM D5185m	>2	**<1**	0	0
Titanium	ppm	ASTM D5185m	>2	**<1**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	2	2
Lead	ppm	ASTM D5185m	>40	**2**	21	15
Copper	ppm	ASTM D5185m	>330	**4**	4	2
Tin	ppm	ASTM D5185m	>15	**<1**	1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	**12**	7	9
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**58**	57	55
Manganese	ppm	ASTM D5185m	0	**1**	1	<1
Magnesium	ppm	ASTM D5185m	1010	▲ **625**	598	554
Calcium	ppm	ASTM D5185m	1070	▲ **1654**	1796	1587
Phosphorus	ppm	ASTM D5185m	1150	**803**	759	760
Zinc	ppm	ASTM D5185m	1270	**1056**	1012	981
Sulfur	ppm	ASTM D5185m	2060	**3264**	2732	2420

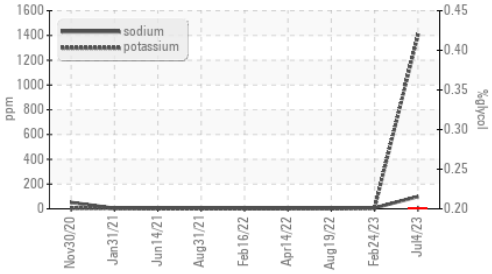
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	**10**	6	6
Sodium	ppm	ASTM D5185m		▲ **99**	7	4
Potassium	ppm	ASTM D5185m	>20	▲ **1401**	6	2
Glycol	%	*ASTM D2982		⬢ **0.20**	NEG	NEG

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>6	**0.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**11.7**	12.1	13.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.7**	26.5	26.9

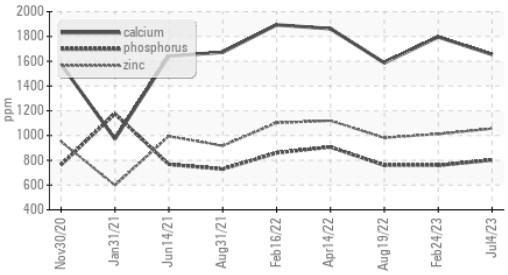
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.9**	21.6	22.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**7.4**	▲ 3.3	4.7

OIL ANALYSIS REPORT

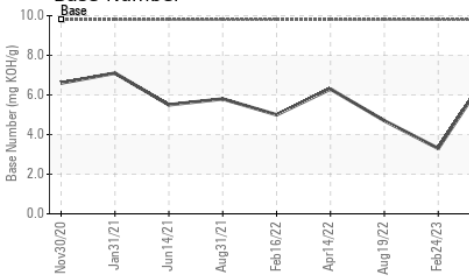
Glycol Contamination



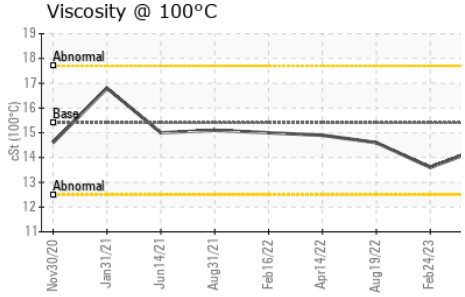
Additives



Base Number



Viscosity @ 100°C

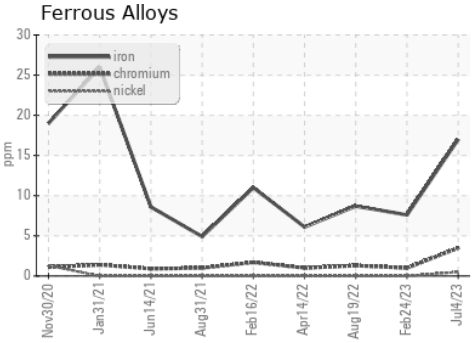


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

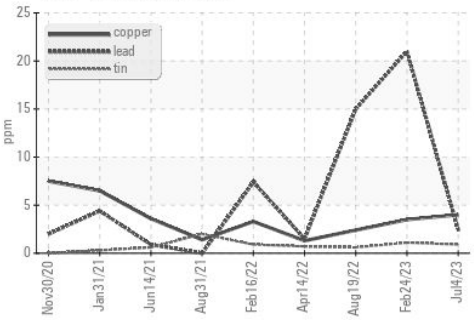
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	**14.4**	13.6	14.6

GRAPHS

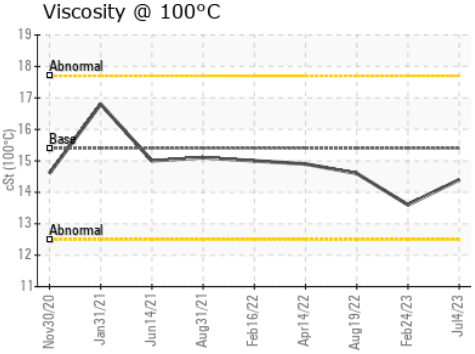
Ferrous Alloys



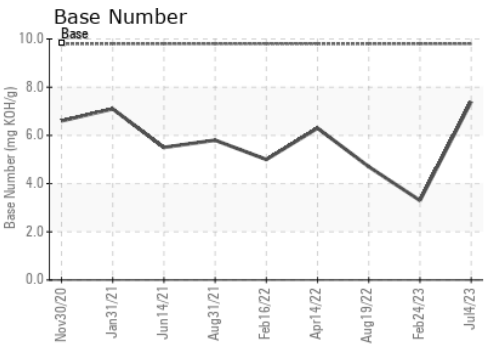
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0066870 **Received** : 06 Jul 2023
Lab Number : 05891118 **Diagnosed** : 09 Jul 2023
Unique Number : 10546928 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: Glycol)

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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