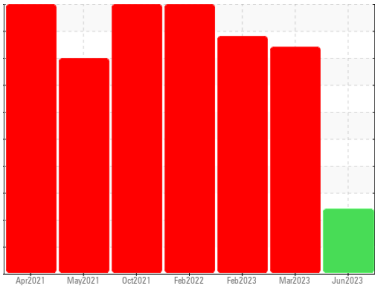
PROBLEM SUMMARY

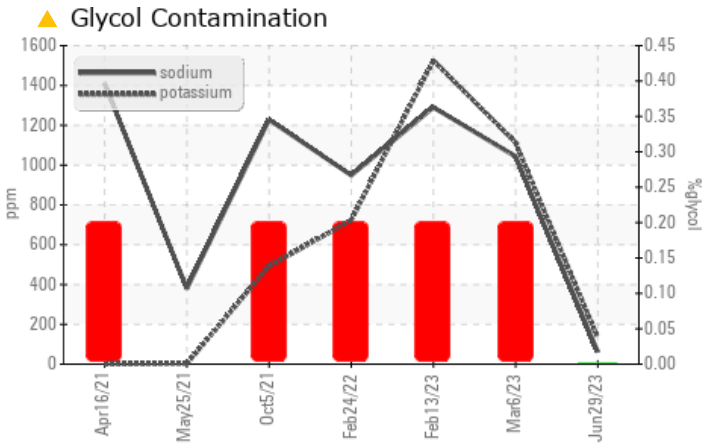
Machine Id
424042-402401
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

Sample Rating Trend



GLYCOL

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. (Customer Sample Comment: Top Up Amount: 1 LTR)

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	SEVERE	SEVERE
Sodium	ppm	ASTM D5185m		▲ **62**	▲ 1043	▲ 1290
Potassium	ppm	ASTM D5185m	>20	▲ **134**	▲ 1113	▲ 1525

Customer Id: GFL885
Sample No.: GFL0081524
Lab Number: 05888244
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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.

HISTORICAL DIAGNOSIS

06 Mar 2023 Diag: Jonathan Hester

GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

13 Feb 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.All component wear rates are normal. Sodium and/or potassium levels are high. There is a high concentration of glycol present in the 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.

view report

24 Feb 2022 Diag: Jonathan Hester

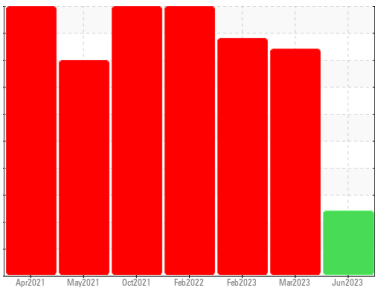
GLYCOL

We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.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. 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.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
424042-402401
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. (Customer Sample Comment: Top Up Amount: 1 LTR)

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0081524**	GFL0071954	GFL0071936
Sample Date		Client Info		**29 Jun 2023**	06 Mar 2023	13 Feb 2023
Machine Age	hrs	Client Info		**32901**	32873	32833
Oil Age	hrs	Client Info		**600**	600	600
Oil Changed		Client Info		**Not Changd**	Oil Added	Changed
Sample Status				**ABNORMAL**	SEVERE	SEVERE

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	>120	**3**	37	42
Chromium	ppm	ASTM D5185m	>20	**<1**	2	2
Nickel	ppm	ASTM D5185m	>5	**0**	2	<1
Titanium	ppm	ASTM D5185m	>2	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**0**	4	2
Lead	ppm	ASTM D5185m	>40	**2**	16	21
Copper	ppm	ASTM D5185m	>330	**12**	33	37
Tin	ppm	ASTM D5185m	>15	**<1**	2	3
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	<1	<1
Cadmium	ppm	ASTM D5185m		**<1**	2	<1

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	**2**	96	101
Barium	ppm	ASTM D5185m	0	**0**	4	0
Molybdenum	ppm	ASTM D5185m	60	**82**	217	259
Manganese	ppm	ASTM D5185m	0	**<1**	2	<1
Magnesium	ppm	ASTM D5185m	1010	**758**	678	504
Calcium	ppm	ASTM D5185m	1070	**987**	955	642
Phosphorus	ppm	ASTM D5185m	1150	**929**	900	668
Zinc	ppm	ASTM D5185m	1270	**1163**	1058	789
Sulfur	ppm	ASTM D5185m	2060	**3148**	2482	2104

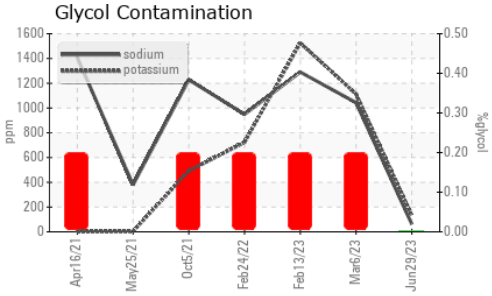
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	**4**	9	13
Sodium	ppm	ASTM D5185m		▲ **62**	▲ 1043	▲ 1290
Potassium	ppm	ASTM D5185m	>20	▲ **134**	▲ 1113	▲ 1525
Glycol	%	*ASTM D2982		**0.0**	⬢ 0.20	⬢ 0.20

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>4	**0.7**	1.7	2.2
Nitration	Abs/cm	*ASTM D7624	>20	**9.2**	21.1	42.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.4**	11.6	0.0

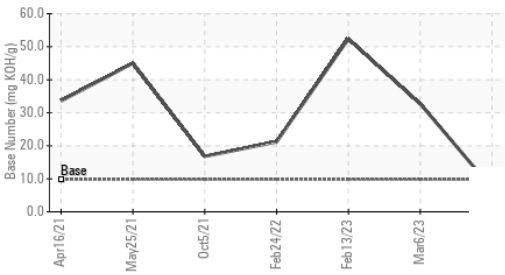
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.3**	22.5	35.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**7.1**	32.7	52.4

OIL ANALYSIS REPORT

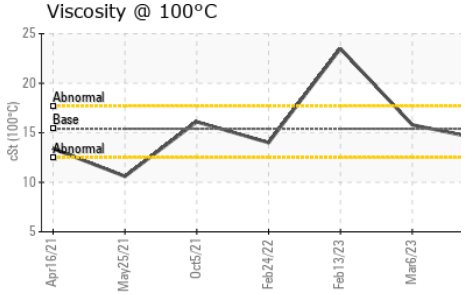
Glycol Contamination



Base Number



Viscosity @ 100°C

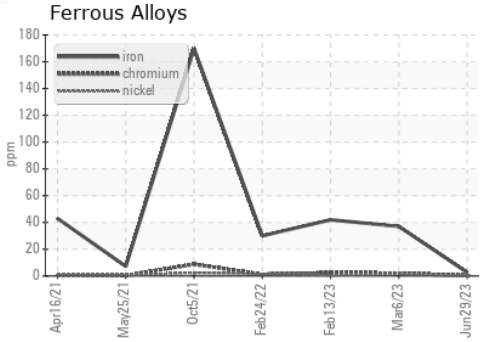


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

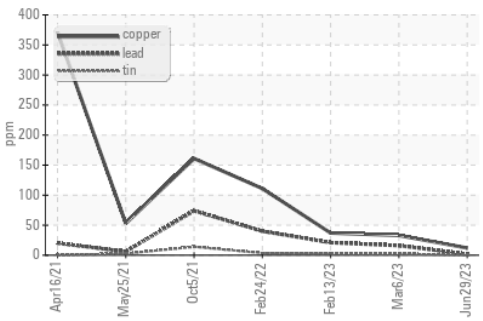
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	**14.3**	15.8	▲ 23.5

GRAPHS

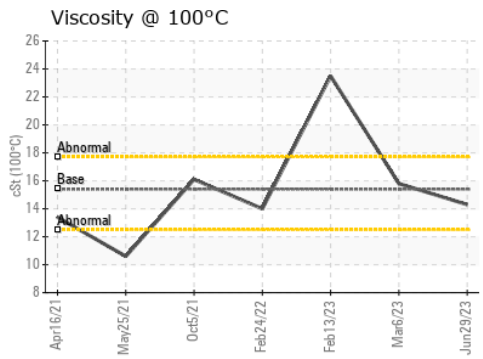
Ferrous Alloys



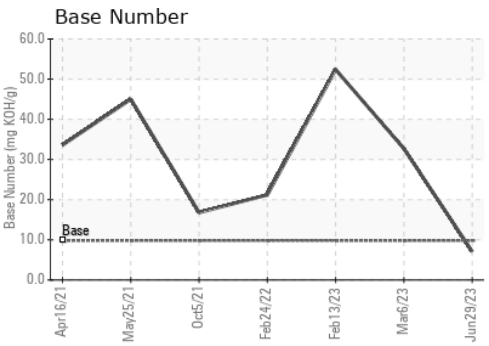
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0081524
Lab Number : 05888244
Unique Number : 10538727
Test Package : FLEET

Received : 30 Jun 2023
Diagnosed : 04 Jul 2023
Diagnostician : Don Baldridge

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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