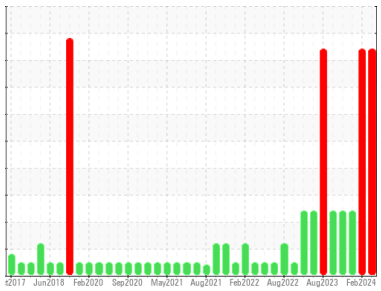
PROBLEM SUMMARY

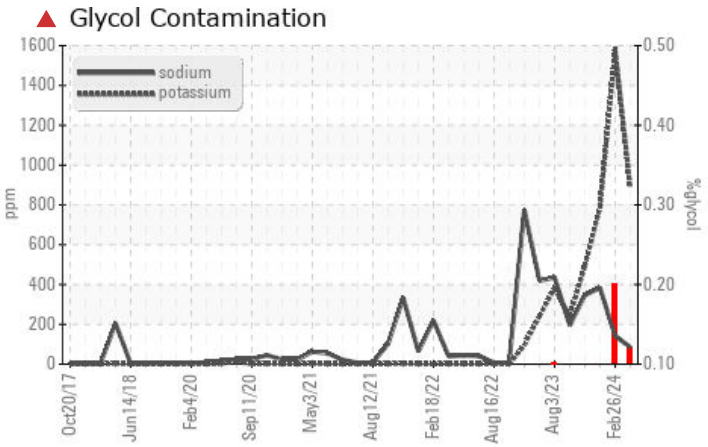
Area
(YA134232)
Machine Id
2667C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (12 GAL)

Sample Rating Trend



GLYCOL

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	ABNORMAL
Sodium	ppm	ASTM D5185m		▲ **84**	▲ 143	▲ 383
Potassium	ppm	ASTM D5185m	>20	▲ **887**	▲ 1578	▲ 787
Glycol	%	*ASTM D2982		▲ **0.12**	▲ 0.20	---

Customer Id: GFL017
Sample No.: GFL0118401
Lab Number: 06195095
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

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

GLYCOL

26 Feb 2024 Diag: Jonathan Hester

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. Test for glycol is positive. 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

COOLANT

04 Dec 2023 Diag: Jonathan Hester

We advise that you check for possible coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

COOLANT

13 Sep 2023 Diag: Jonathan Hester

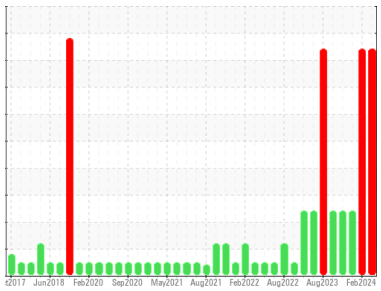
We advise that you check for possible coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

OIL ANALYSIS REPORT

Area
(YA134232)
Machine Id
2667C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (12 GAL)

Sample Rating Trend



GLYCOL

DIAGNOSIS

Recommendation
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.

Wear
All component wear rates are normal.

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

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0118401**	GFL0112923	GFL0098121
Sample Date		Client Info		**30 May 2024**	26 Feb 2024	04 Dec 2023
Machine Age	hrs	Client Info		**6792**	6792	6792
Oil Age	hrs	Client Info		**590**	581	556
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**20**	9	10
Chromium	ppm	ASTM D5185m	>4	**2**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>3	**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>9	**2**	2	2
Lead	ppm	ASTM D5185m	>30	**4**	<1	1
Copper	ppm	ASTM D5185m	>35	**<1**	<1	0
Tin	ppm	ASTM D5185m	>4	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**7**	16	11
Barium	ppm	ASTM D5185m	5	**0**	8	0
Molybdenum	ppm	ASTM D5185m	50	**53**	50	62
Manganese	ppm	ASTM D5185m	0	**<1**	0	<1
Magnesium	ppm	ASTM D5185m	560	**550**	500	523
Calcium	ppm	ASTM D5185m	1510	**1742**	1325	1515
Phosphorus	ppm	ASTM D5185m	780	**693**	774	636
Zinc	ppm	ASTM D5185m	870	**1026**	838	987
Sulfur	ppm	ASTM D5185m	2040	**3192**	2494	2699

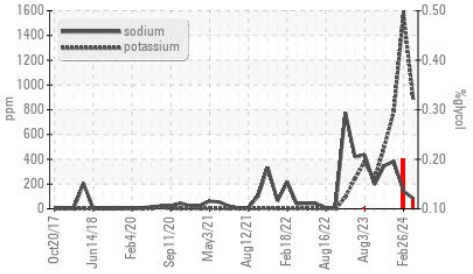
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**22**	39	15
Sodium	ppm	ASTM D5185m		▲ **84**	▲ 143	▲ 383
Potassium	ppm	ASTM D5185m	>20	▲ **887**	▲ 1578	▲ 787
Glycol	%	*ASTM D2982		▲ **0.12**	▲ 0.20	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0
Nitration	Abs/cm	*ASTM D7624	>20	**10.6**	8.6	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.5**	20.9	23.1

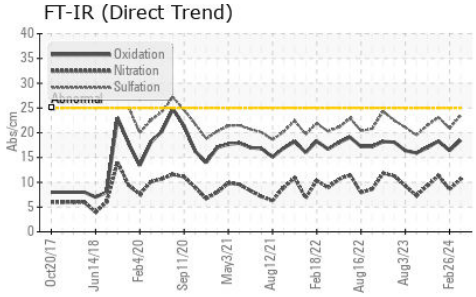
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.5**	16.4	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**5.4**	10.0	6.3

OIL ANALYSIS REPORT

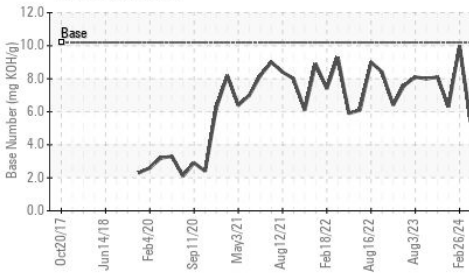
Glycol Contamination



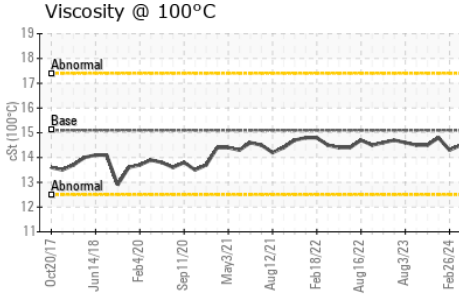
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

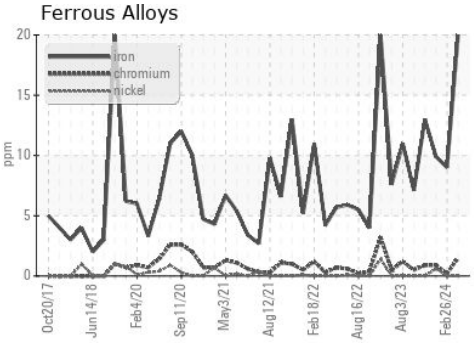


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

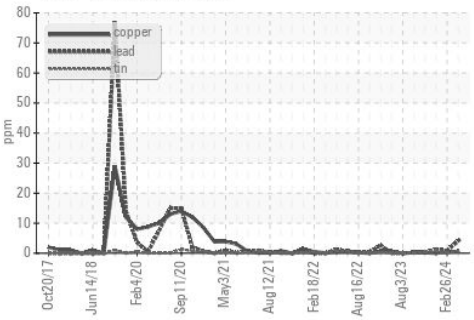
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**14.5**	14.3	14.8

GRAPHS

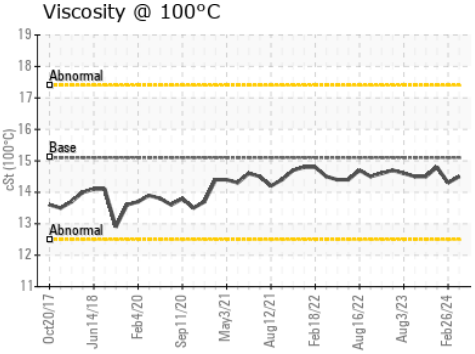
Ferrous Alloys



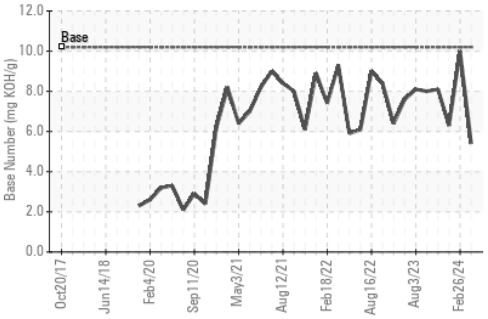
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118401
Lab Number : 06195095
Unique Number : 11057218
Test Package : FLEET (Additional Tests: Glycol)

Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 03 Jun 2024 - 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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