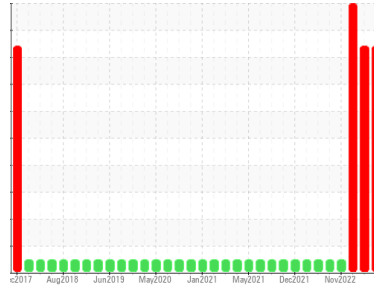




PROBLEM SUMMARY

Area
Whiteville NC
 Machine Id
10826
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (6 GAL)

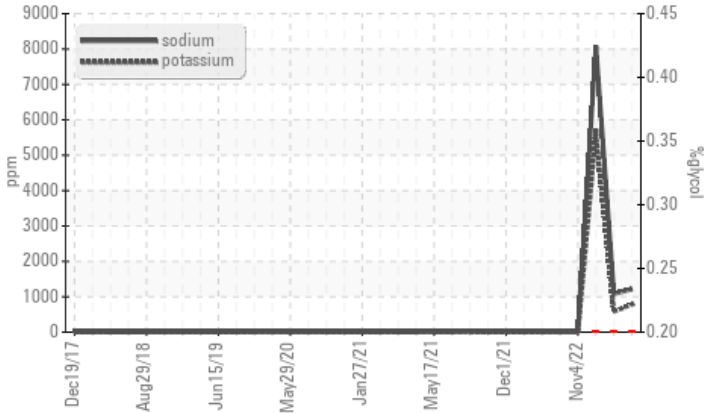
Sample Rating Trend



GLYCOL

COMPONENT CONDITION SUMMARY

Glycol Contamination



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	SEVERE
Sodium	ppm	ASTM D5185m		▲ 1219	▲ 1079	▲ 8077
Potassium	ppm	ASTM D5185m	>20	▲ 785	▲ 582	▲ 5638
Glycol	%	*ASTM D2982		● 0.20	● 0.20	● 0.20

Customer Id: GFL108
 Sample No.: GFL0083367
 Lab Number: 06003967
 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	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
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

26 Jul 2023 Diag: Wes Davis

GLYCOL



We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Test for glycol is positive. 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



04 May 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. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

view report



04 Nov 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.

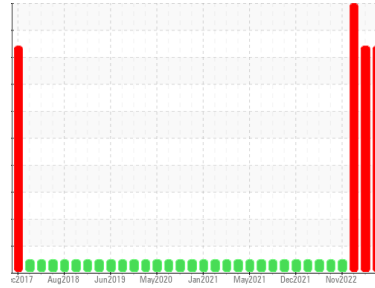
view report





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
Whiteville NC
 Machine Id
10826

Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (6 GAL)

DIAGNOSIS

Recommendation

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.

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		GFL0083367	GFL0083340	GFL0054256
Sample Date	Client Info		08 Nov 2023	26 Jul 2023	04 May 2023
Machine Age	hrs	Client Info	26899	26249	25894
Oil Age	hrs	Client Info	600	600	600
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	SEVERE	SEVERE

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	24	23	63
Chromium	ppm	ASTM D5185m >20	<1	<1	3
Nickel	ppm	ASTM D5185m >2	0	0	2
Titanium	ppm	ASTM D5185m >2	<1	<1	1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >20	4	3	8
Lead	ppm	ASTM D5185m >40	<1	0	<1
Copper	ppm	ASTM D5185m >330	32	14	46
Tin	ppm	ASTM D5185m >15	<1	0	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	21	28	236
Barium	ppm	ASTM D5185m 0	0	2	0
Molybdenum	ppm	ASTM D5185m 60	102	100	404
Manganese	ppm	ASTM D5185m 0	<1	<1	2
Magnesium	ppm	ASTM D5185m 1010	1009	1080	874
Calcium	ppm	ASTM D5185m 1070	1115	1164	1004
Phosphorus	ppm	ASTM D5185m 1150	1112	1145	848
Zinc	ppm	ASTM D5185m 1270	1374	1409	1198
Sulfur	ppm	ASTM D5185m 2060	3152	4183	3345

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	26	24	186
Sodium	ppm	ASTM D5185m	1219	1079	8077
Potassium	ppm	ASTM D5185m >20	785	582	5638
Glycol	%	*ASTM D2982	0.20	0.20	0.20

INFRA-RED

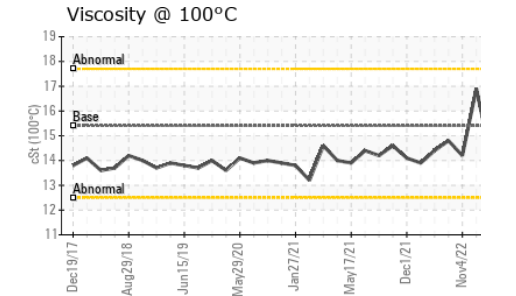
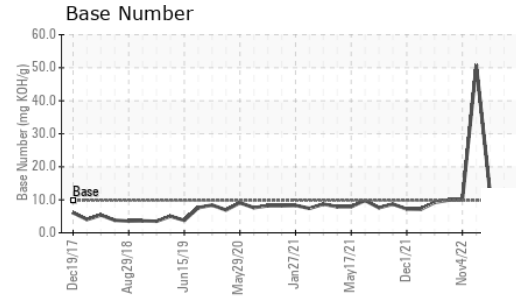
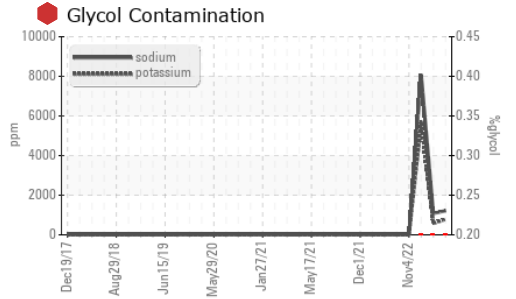
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	0.9	0.6	0.9
Nitration	Abs/cm	*ASTM D7624 >20	12.0	9.8	25.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.4	21.5	28.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.6	14.8	17.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	11.8	11.7	50.8



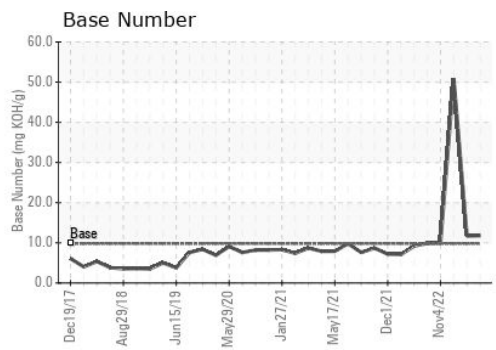
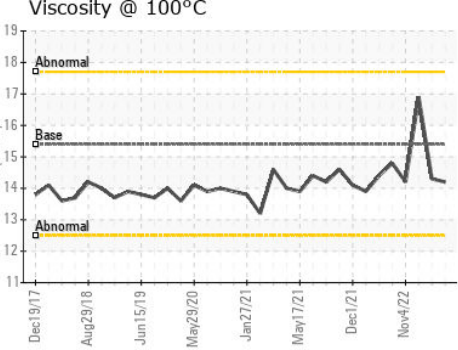
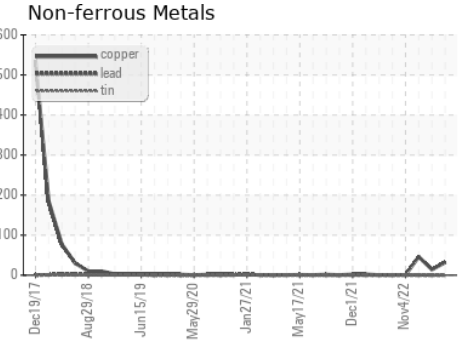
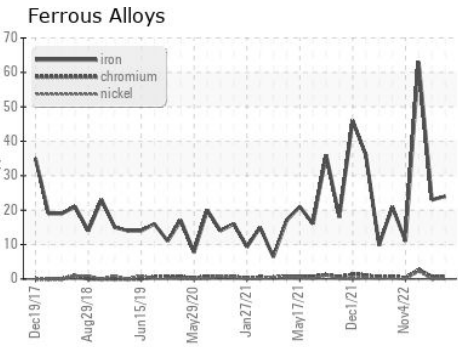
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	14.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0083367 **Received** : 10 Nov 2023
Lab Number : 06003967 **Diagnosed** : 14 Nov 2023
Unique Number : 10737729 **Diagnostician** : Jonathan Hester
Test Package : FLEET

GFL Environmental - 108 - Whiteville
 5240 James B White Hwy South
 Whiteville, NC
 US 28472
 Contact: Victor McGee
 victor.mcgee@gflenv.com

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)

T:
F: