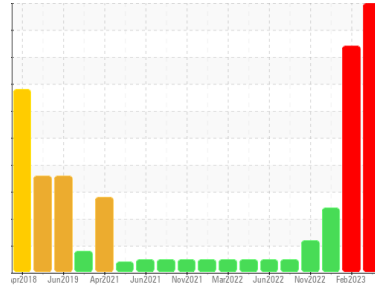




PROBLEM SUMMARY

Sample Rating Trend

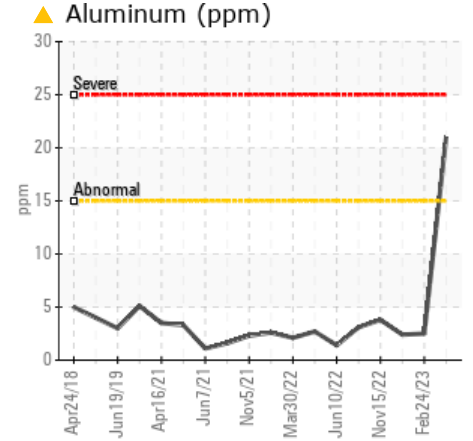
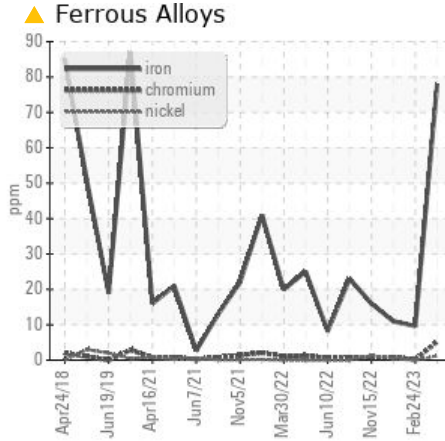
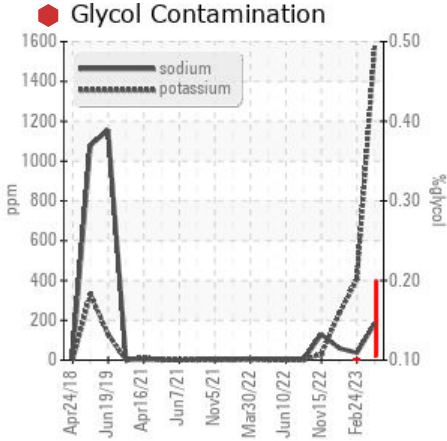


GLYCOL



Machine Id
10833
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (46 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>75	▲ 78	10	11
Aluminum	ppm	ASTM D5185m	>15	▲ 21	2	2
Sodium	ppm	ASTM D5185m		▲ 184	▲ 37	▲ 60
Potassium	ppm	ASTM D5185m	>20	▲ 1575	▲ 405	▲ 234
Glycol	%	*ASTM D2982		● 0.20	● 0.10	NEG

Customer Id: GFL018
 Sample No.: GFL0066836
 Lab Number: 05891153
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +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
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

24 Feb 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



02 Feb 2023 Diag: Jonathan Hester

GLYCOL



We advise that you check for possible 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. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



15 Nov 2022 Diag: Jonathan Hester

GLYCOL



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.

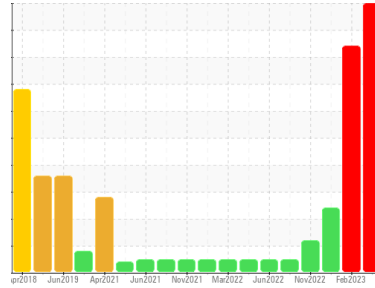
view report





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
10833

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (46 GAL)

DIAGNOSIS

Recommendation

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.

Wear

Piston, ring and cylinder wear is indicated.

Contamination

Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil.

Fluid Condition

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	GFL0066836	GFL0055818	GFL0066794
Sample Date	Client Info	04 Jul 2023	24 Feb 2023	02 Feb 2023
Machine Age	hrs	Client Info	9541	9541
Oil Age	hrs	Client Info	9541	9541
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		SEVERE	SEVERE	ABNORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history 1	history 2		
Iron	ppm	ASTM D5185m	>75	78	10	11
Chromium	ppm	ASTM D5185m	>5	5	<1	<1
Nickel	ppm	ASTM D5185m	>4	1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	21	2	2
Lead	ppm	ASTM D5185m	>25	<1	0	<1
Copper	ppm	ASTM D5185m	>100	10	0	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

method	limit/base	current	history 1	history 2		
Boron	ppm	ASTM D5185m	0	151	5	5
Barium	ppm	ASTM D5185m	0	4	0	0
Molybdenum	ppm	ASTM D5185m	60	76	55	60
Manganese	ppm	ASTM D5185m	0	2	<1	<1
Magnesium	ppm	ASTM D5185m	1010	463	849	926
Calcium	ppm	ASTM D5185m	1070	1326	1056	1111
Phosphorus	ppm	ASTM D5185m	1150	1017	888	995
Zinc	ppm	ASTM D5185m	1270	1216	1081	1289
Sulfur	ppm	ASTM D5185m	2060	3882	3044	3726

CONTAMINANTS

method	limit/base	current	history 1	history 2		
Silicon	ppm	ASTM D5185m	>25	12	7	10
Sodium	ppm	ASTM D5185m		184	37	60
Potassium	ppm	ASTM D5185m	>20	1575	405	234
Glycol	%	*ASTM D2982		0.20	0.10	NEG

INFRA-RED

method	limit/base	current	history 1	history 2		
Soot %	%	*ASTM D7844	>6	0.6	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.2	7.4	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	19.7	19.2

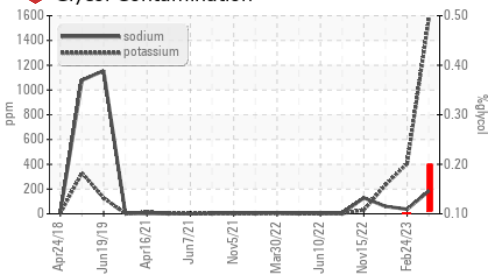
FLUID DEGRADATION

method	limit/base	current	history 1	history 2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	15.0	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.3	9.0	9.3

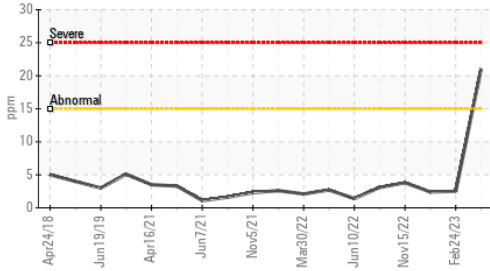


OIL ANALYSIS REPORT

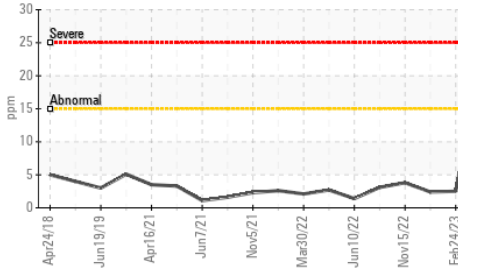
Glycol Contamination



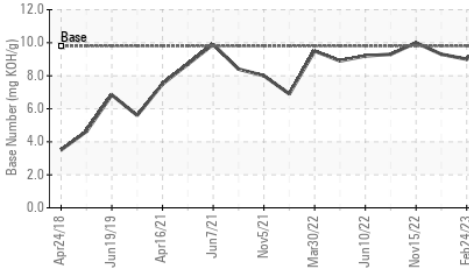
Aluminum (ppm)



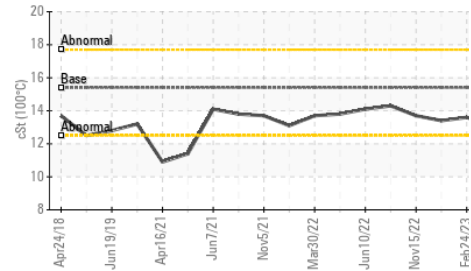
Aluminum (ppm)



Base Number



Viscosity @ 100°C



VISUAL

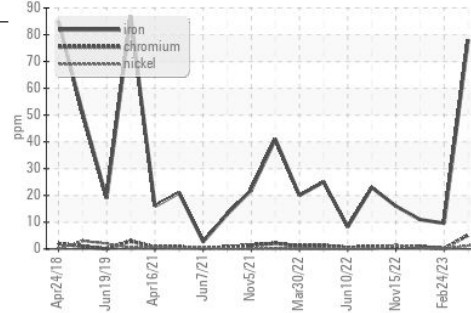
method	limit/base	current	history 1	history 2		
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE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

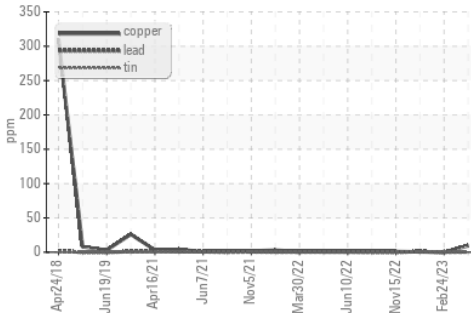
method	limit/base	current	history 1	history 2		
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.6	13.4

GRAPHS

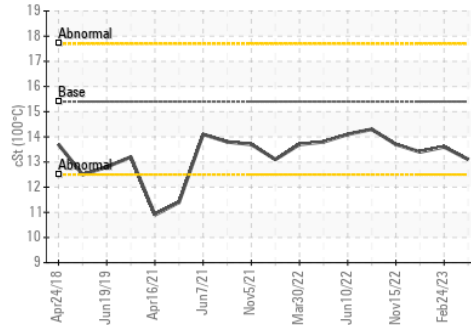
Ferrous Alloys



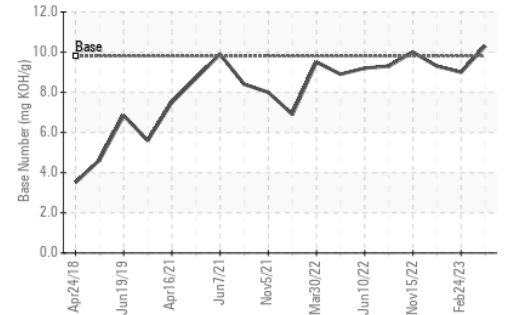
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0066836
 Lab Number : 05891153
 Unique Number : 10546963
 Test Package : FLEET

GFL Environmental - 018 - Fayetteville
 4621 Marracco Drive
 Hope Mills, NC
 US 28348
 Contact: Robert Carter
 robert.carter@gflenv.com
 T: (910)596-1170
 F:

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)