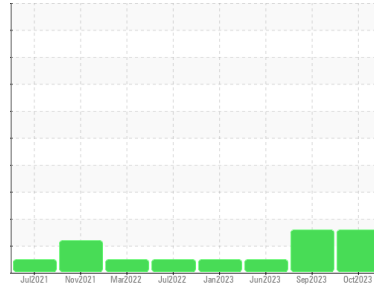




PROBLEM SUMMARY

Sample Rating Trend



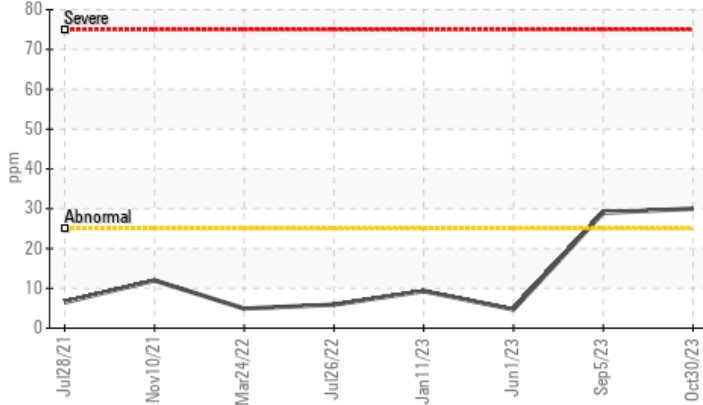
Machine Id
528010-1137

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	NORMAL
Silicon	ppm	ASTM D5185m	>25	▲ 30	▲ 29	5

Customer Id: GFL622
Sample No.: GFL0090474
Lab Number: 05998379
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@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.

HISTORICAL DIAGNOSIS

05 Sep 2023 Diag: Jonathan Hester

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. 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](#)



01 Jun 2023 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](#)



11 Jan 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. 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.

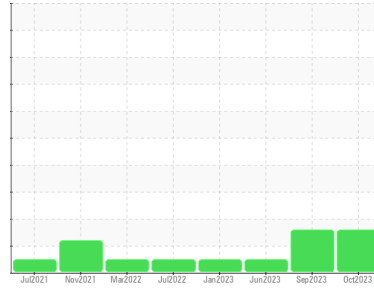
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
528010-1137

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

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	history1	history2	
Sample Number	Client Info	GFL0090474	GFL0078746	GFL0083940	
Sample Date	Client Info	30 Oct 2023	05 Sep 2023	01 Jun 2023	
Machine Age	hrs	Client Info	14151	13775	13248
Oil Age	hrs	Client Info	600	342	620
Oil Changed	Client Info	Changed	Not Changd	Changed	
Sample Status		ABNORMAL	ABNORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	63	36	36
Chromium	ppm ASTM D5185m >20	3	2	1
Nickel	ppm ASTM D5185m >4	<1	0	0
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >3	<1	0	0
Aluminum	ppm ASTM D5185m >20	7	4	3
Lead	ppm ASTM D5185m >40	6	<1	<1
Copper	ppm ASTM D5185m >330	<1	0	<1
Tin	ppm ASTM D5185m >15	1	<1	0
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	6	3	3
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	66	61	64
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	981	929	970
Calcium	ppm ASTM D5185m 1070	1114	1060	1184
Phosphorus	ppm ASTM D5185m 1150	1028	967	1027
Zinc	ppm ASTM D5185m 1270	1352	1179	1280
Sulfur	ppm ASTM D5185m 2060	2710	3173	3395

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	▲ 30	▲ 29	5
Sodium	ppm ASTM D5185m	5	4	6
Potassium	ppm ASTM D5185m >20	4	2	2

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	2.1	1.2	1.3
Nitration	Abs/cm *ASTM D7624 >20	12.5	9.3	11.4
Sulfation	Abs/.1mm *ASTM D7415 >30	27.2	21.4	23.6

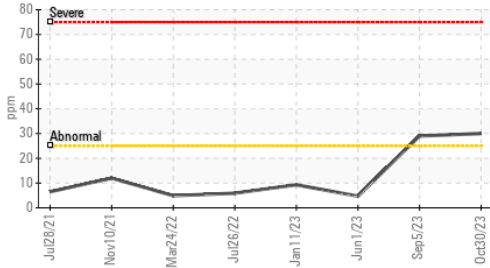
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	21.6	15.7	17.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	5.6	7.2	7.3

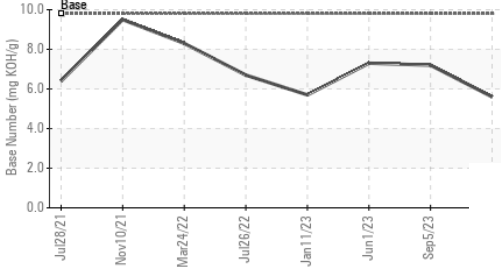


OIL ANALYSIS REPORT

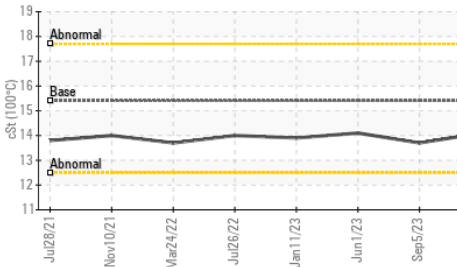
▲ Silicon (ppm)



Base Number



Viscosity @ 100°C

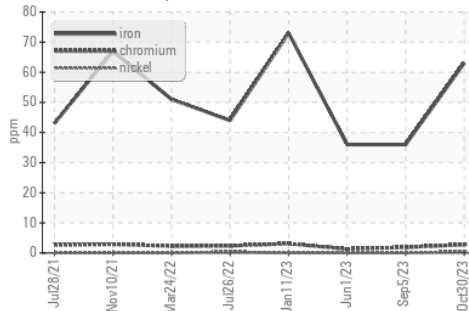


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

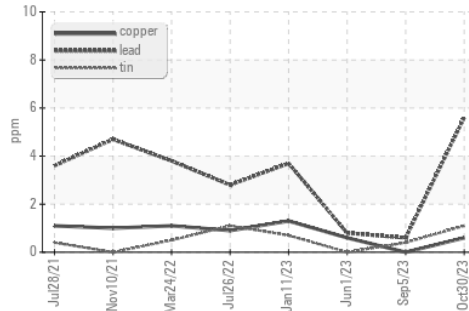
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	13.7

GRAPHS

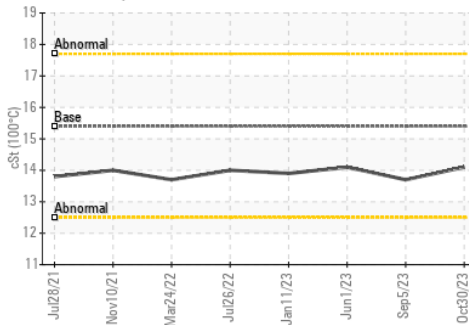
Ferrous Alloys



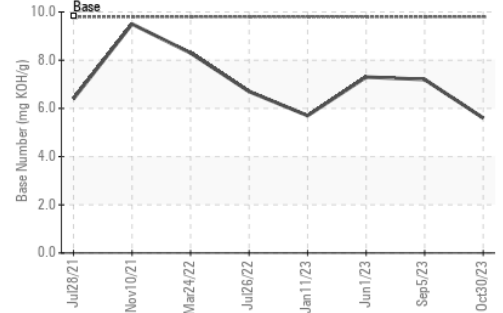
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0090474
 Lab Number : 05998379
 Unique Number : 10726739
 Test Package : FLEET

GFL Environmental - 622 - Traverse City Hauling
 160 Hughes Dr
 Traverse City, MI
 US 49686
 Contact: GARY BREWER

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: