



PROBLEM SUMMARY

Sample Rating Trend

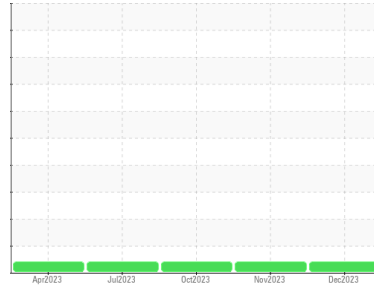
VISCOSITY



Machine Id
413115

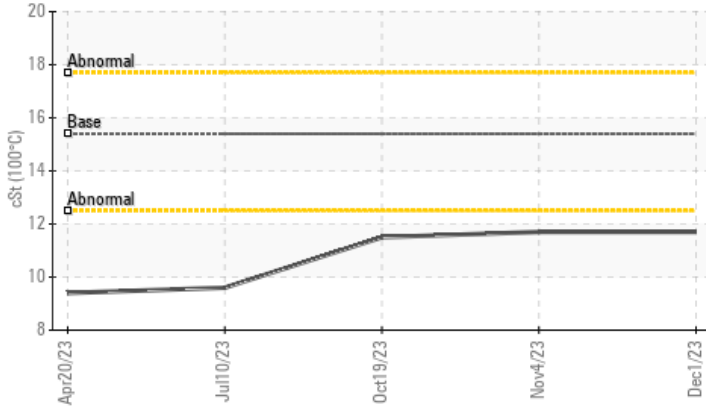
Component
Diesel Engine

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



COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	ATTENTION
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.7	▲ 11.7	▲ 11.5

Customer Id: GFL836
Sample No.: GFL0102553
Lab Number: 06029916
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

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

04 Nov 2023 Diag: Jonathan Hester

VISCOSITY



No corrective action is recommended at this time. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



19 Oct 2023 Diag: Don Baldrige

VISCOSITY



Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



10 Jul 2023 Diag: Jonathan Hester

VISCOSITY



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

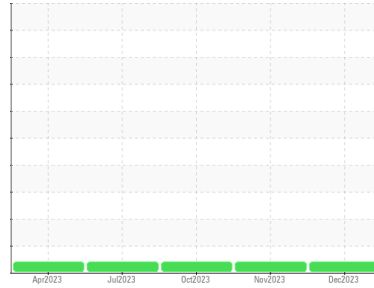
view report





OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
413115

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0102553	GFL0098612	GFL0093678
Sample Date	Client Info		01 Dec 2023	04 Nov 2023	19 Oct 2023
Machine Age	hrs	Client Info	2023	1889	1754
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	N/A	Changed
Sample Status			ATTENTION	ATTENTION	ATTENTION

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	10	7	21
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	<1	<1	2
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	<1
Aluminum	ppm	ASTM D5185m >20	3	2	6
Lead	ppm	ASTM D5185m >40	0	0	<1
Copper	ppm	ASTM D5185m >330	8	7	39
Tin	ppm	ASTM D5185m >15	0	<1	1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	40	46	19
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	61	57	67
Manganese	ppm	ASTM D5185m 0	0	<1	<1
Magnesium	ppm	ASTM D5185m 1010	1136	1118	1092
Calcium	ppm	ASTM D5185m 1070	845	821	929
Phosphorus	ppm	ASTM D5185m 1150	1025	976	1001
Zinc	ppm	ASTM D5185m 1270	1298	1246	1274
Sulfur	ppm	ASTM D5185m 2060	3225	3222	3012

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	4	8
Sodium	ppm	ASTM D5185m	5	14	4
Potassium	ppm	ASTM D5185m >20	5	3	15

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.1	0.4
Nitration	Abs/cm	*ASTM D7624 >20	8.4	7.6	9.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.7	19.6	21.1

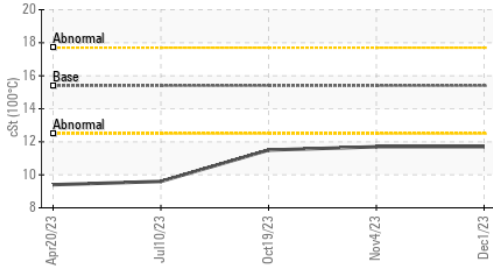
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.8	17.3	19.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.3	9.2	6.7

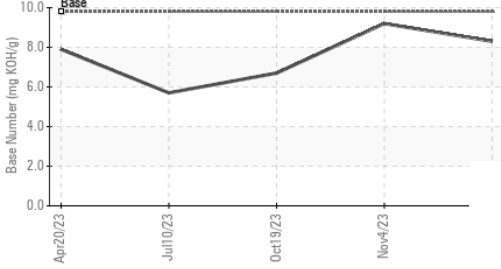


OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



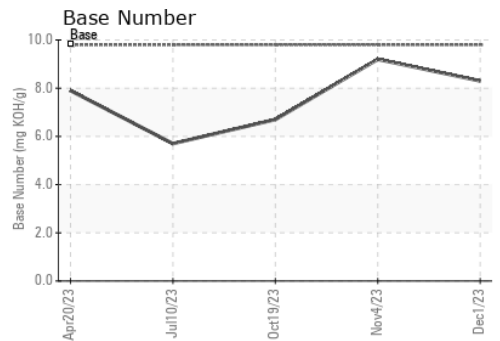
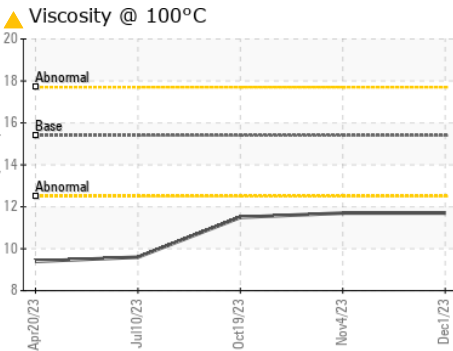
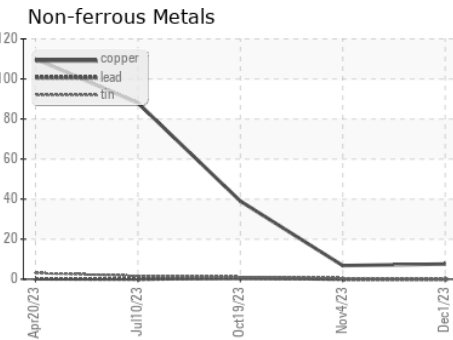
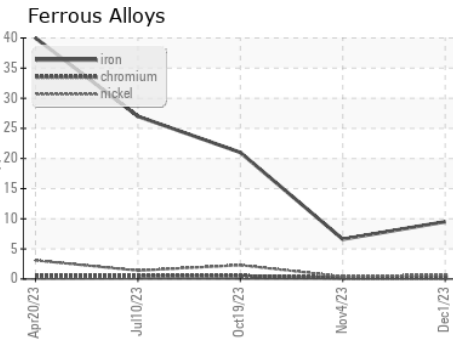
Base Number



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 ▲ 11.7	▲ 11.7	▲ 11.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102553 **Received** : 08 Dec 2023
Lab Number : 06029916 **Diagnosed** : 12 Dec 2023
Unique Number : 10779707 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Robert Hart
 rhart@gflenv.com
 T: (580)461-1509
 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)