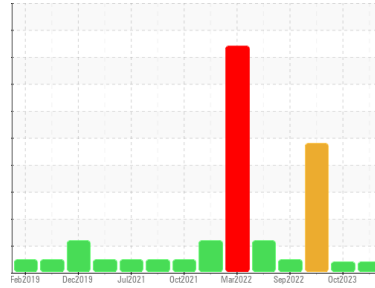




PROBLEM SUMMARY

Sample Rating Trend



VISCOSITY



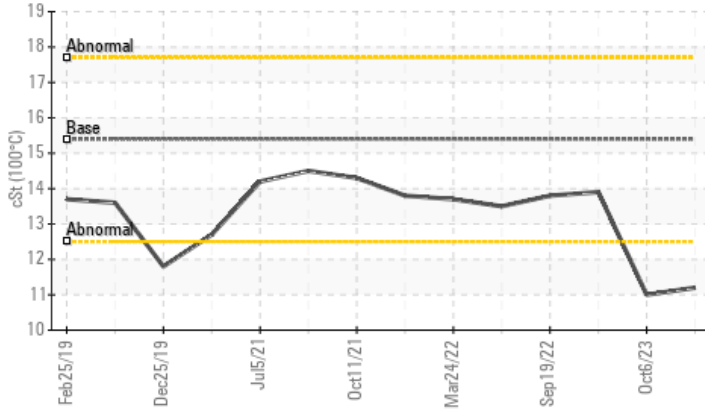
Machine Id
923040-260203

Component
Diesel Engine

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

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	ABNORMAL
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.2	▲ 11.0	13.9

Customer Id: GFL820
 Sample No.: GFL0088210
 Lab Number: 05995314
 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

06 Oct 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. All component wear rates are normal. Fuel content negligible. 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



30 Nov 2022 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. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. Test for glycol is positive. There is a moderate 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



19 Sep 2022 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.

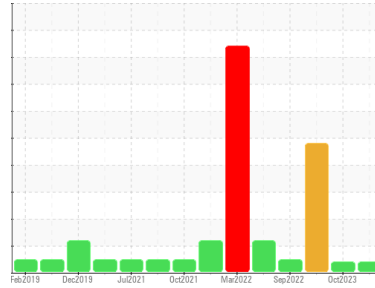
view report





OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
923040-260203

Component
Diesel Engine

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

DIAGNOSIS

▲ Recommendation

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		GFL0088210	GFL0088114	GFL0061297
Sample Date	Client Info		24 Oct 2023	06 Oct 2023	30 Nov 2022
Machine Age	hrs	Client Info	0	0	12919
Oil Age	hrs	Client Info	0	0	700
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			ATTENTION	ATTENTION	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	1.9	<1.0
Glycol	WC Method		NEG	NEG	▲ 0.06

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	34	25	22
Chromium	ppm	ASTM D5185m >20	1	<1	1
Nickel	ppm	ASTM D5185m >4	<1	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >3	<1	0	0
Aluminum	ppm	ASTM D5185m >20	4	3	2
Lead	ppm	ASTM D5185m >40	1	0	3
Copper	ppm	ASTM D5185m >330	4	3	2
Tin	ppm	ASTM D5185m >15	<1	0	<1
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	9	8	3
Barium	ppm	ASTM D5185m 0	4	0	0
Molybdenum	ppm	ASTM D5185m 60	53	55	105
Manganese	ppm	ASTM D5185m 0	4	3	<1
Magnesium	ppm	ASTM D5185m 1010	837	885	910
Calcium	ppm	ASTM D5185m 1070	977	1030	1054
Phosphorus	ppm	ASTM D5185m 1150	1004	949	1032
Zinc	ppm	ASTM D5185m 1270	1135	1179	1248
Sulfur	ppm	ASTM D5185m 2060	2647	2919	3589

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	10	10	5
Sodium	ppm	ASTM D5185m	15	11	▲ 395
Potassium	ppm	ASTM D5185m >20	2	1	▲ 7

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.7	0.4	1
Nitration	Abs/cm	*ASTM D7624 >20	7.7	6.5	11.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.1	18.2	21.6

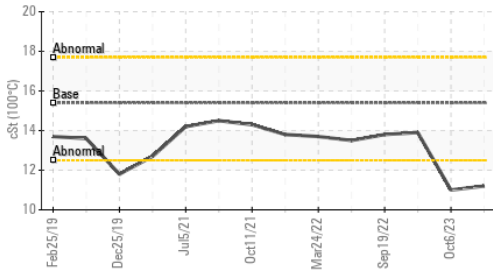
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.6	13.9	15.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.5	9.0	10.6

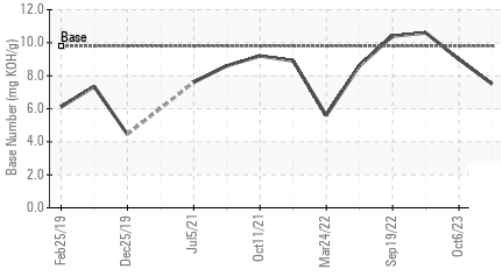


OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



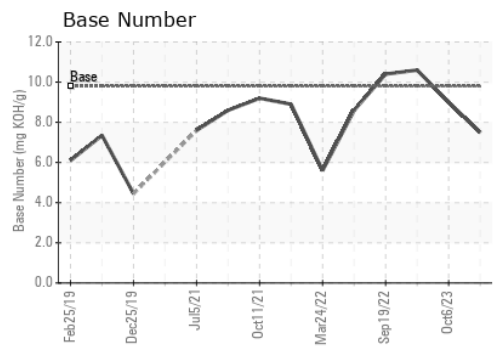
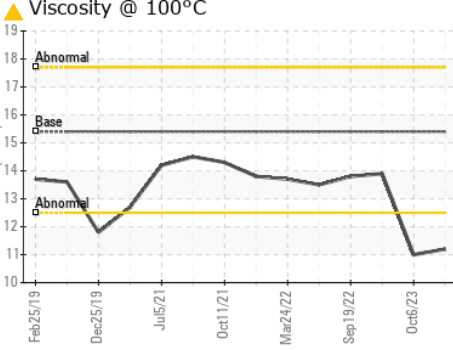
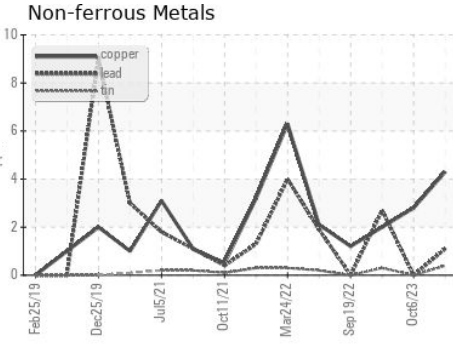
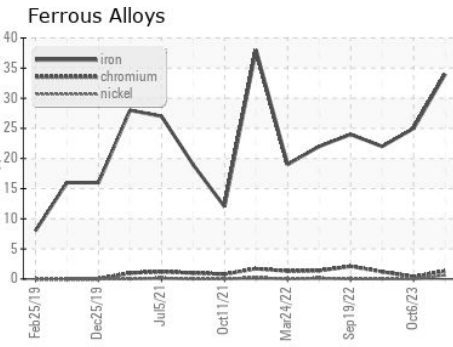
Base Number



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 ▲ 11.2	▲ 11.0	13.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0088210 **Received** : 01 Nov 2023
Lab Number : 05995314 **Diagnosed** : 03 Nov 2023
Unique Number : 10723674 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 820 - Joplin Hauling
 3700 West 7th Street
 Joplin, MO
 US 64801
 Contact: James Jarrett
 jjarrett@gflenv.com
 T: (417)310-2802
 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)