

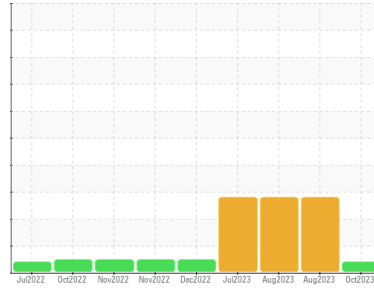


PROBLEM SUMMARY



Area
MONTGOMERY
 Machine Id
MACK 420055
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

Sample Rating Trend

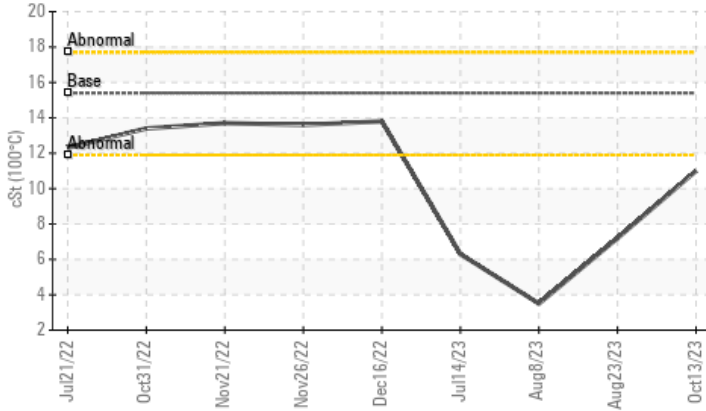


VISCOSITY



COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status	ATTENTION	SEVERE	SEVERE
Visc @ 100°C	▲ 11.0	● 7.2	● 3.5

Customer Id: GFL955
 Sample No.: GFL0092414
 Lab Number: 05981722
 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

23 Aug 2023 Diag: Wes Davis

FUEL



We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report



08 Aug 2023 Diag: Wes Davis

FUEL



We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report



14 Jul 2023 Diag: Wes Davis

FUEL



We advise that you check the fuel injection system. 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. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report





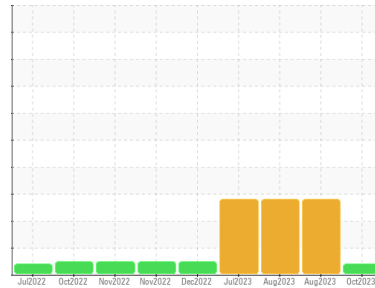
OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Area
MONTGOMERY
Machine Id
MACK 420055
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. 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	GFL0092414	GFL0086050	GFL0086039
Sample Date	Client Info	13 Oct 2023	23 Aug 2023	08 Aug 2023
Machine Age	hrs	Client Info	9237	9112
Oil Age	hrs	Client Info	311	186
Oil Changed	Client Info	Not Chngd	N/A	Not Chngd
Sample Status		ATTENTION	SEVERE	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >120	7	1	5
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >5	<1	0	<1
Titanium	ppm	ASTM D5185m >2	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >20	4	0	3
Lead	ppm	ASTM D5185m >40	<1	<1	<1
Copper	ppm	ASTM D5185m >330	5	0	<1
Tin	ppm	ASTM D5185m >15	<1	0	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	89	0	<1
Barium	ppm	ASTM D5185m 0	10	0	0
Molybdenum	ppm	ASTM D5185m 60	78	39	31
Manganese	ppm	ASTM D5185m 0	0	0	0
Magnesium	ppm	ASTM D5185m 1010	158	683	437
Calcium	ppm	ASTM D5185m 1070	1695	753	514
Phosphorus	ppm	ASTM D5185m 1150	870	699	482
Zinc	ppm	ASTM D5185m 1270	1021	858	592
Sulfur	ppm	ASTM D5185m 2060	3395	2561	1443

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	7	3	4
Sodium	ppm	ASTM D5185m	<1	0	0
Potassium	ppm	ASTM D5185m >20	2	1	2
Fuel	%	ASTM D3524 >3.0	2.0	31.9	49.5

INFRA-RED

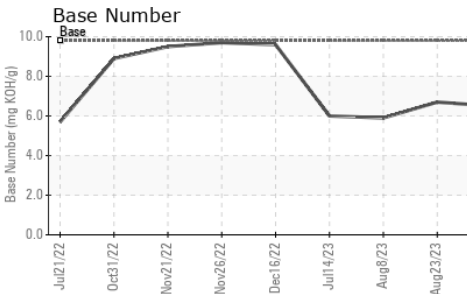
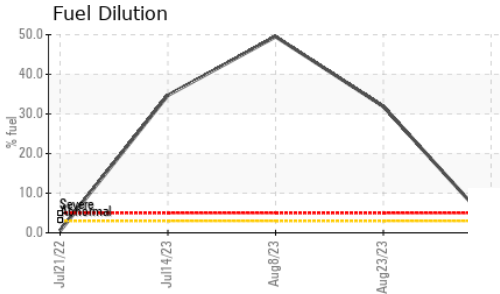
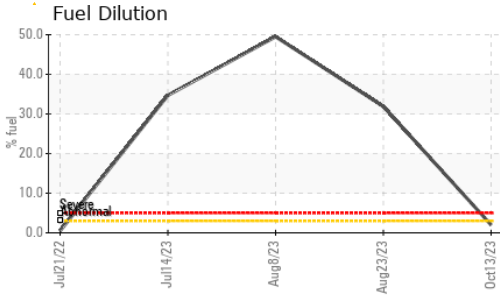
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >4	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	7.9	5.7	7.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.4	15.5	15.6

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.3	10.6	11.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	6.5	6.7	5.9



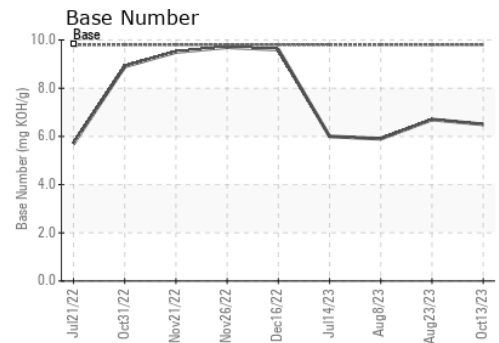
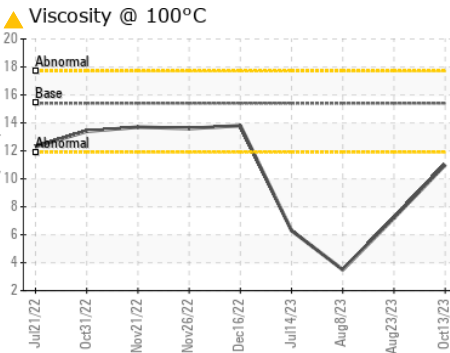
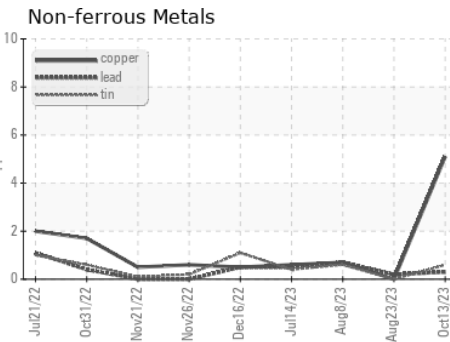
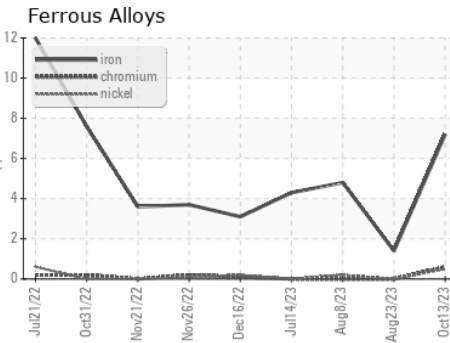
OIL ANALYSIS REPORT



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	▲ 11.0	● 7.2	● 3.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092414 **Received** : 17 Oct 2023
Lab Number : 05981722 **Diagnosed** : 19 Oct 2023
Unique Number : 10699017 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 955 - Montgomery
 1121 Wilbanks St
 Montgomery, AL
 US 36108
 Contact: LISA REEVES

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)

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F: