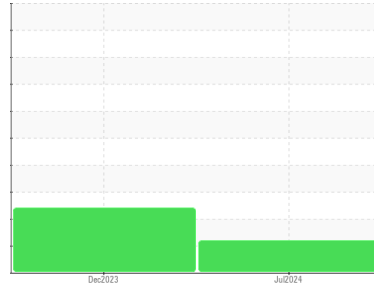




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
223027-18

Component
Diesel Engine

Fluid
PETRO CANADA DURON UHP 5W30 (12 GAL)

DIAGNOSIS

Recommendation

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.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0125844	GFL0100194	---
Sample Date	Client Info	10 Jul 2024	14 Dec 2023	---
Machine Age	hrs	136154	136154	---
Oil Age	hrs	600	0	---
Oil Changed	Client Info	Not Chngd	Changed	---
Sample Status		ABNORMAL	SEVERE	---

CONTAMINATION

method	limit/base	current	history1	history2	
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>100	9	26	---
Chromium	ppm	ASTM D5185m	>20	0	2	---
Nickel	ppm	ASTM D5185m	>4	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	3	6	---
Lead	ppm	ASTM D5185m	>40	2	10	---
Copper	ppm	ASTM D5185m	>330	2	4	---
Tin	ppm	ASTM D5185m	>15	<1	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	111	74	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	64	166	56	---
Manganese	ppm	ASTM D5185m	0	0	<1	---
Magnesium	ppm	ASTM D5185m	1160	589	523	---
Calcium	ppm	ASTM D5185m	820	1128	1060	---
Phosphorus	ppm	ASTM D5185m	1160	601	602	---
Zinc	ppm	ASTM D5185m	1260	724	745	---
Sulfur	ppm	ASTM D5185m	3000	3211	2001	---

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	10	22	---
Sodium	ppm	ASTM D5185m		9	36	---
Potassium	ppm	ASTM D5185m	>20	2	4	---
Fuel	%	ASTM D3524	>5	▲ 5.4	▲ 12.0	---

INFRA-RED

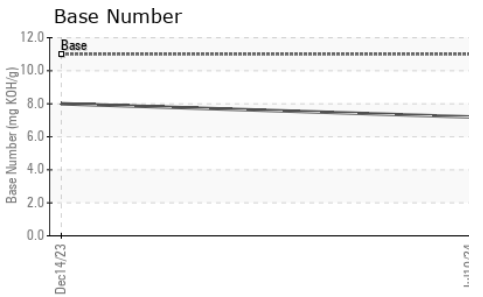
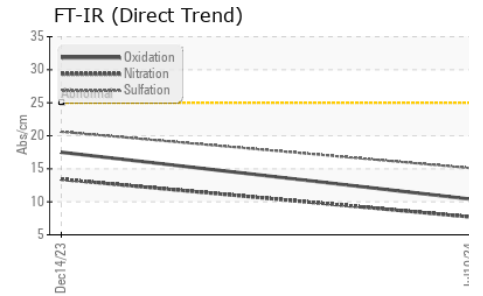
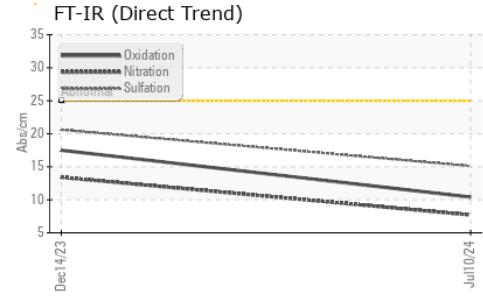
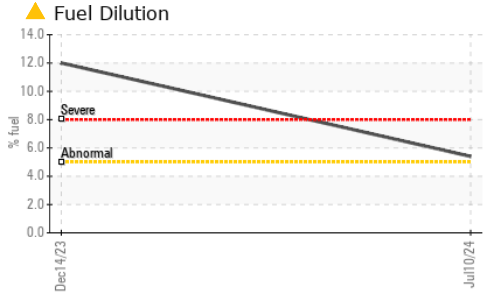
method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	7.7	13.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.1	20.6	---

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.4	17.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	7.2	8.0	---



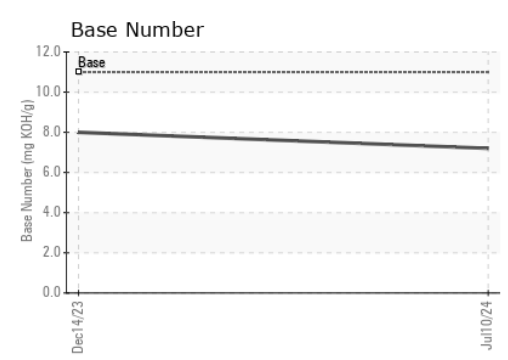
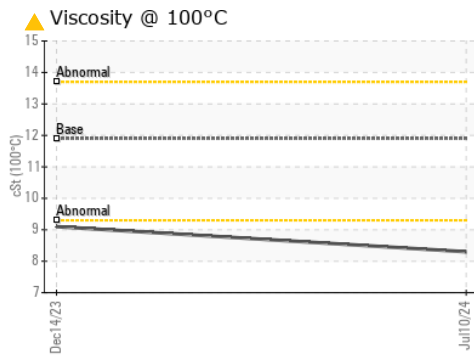
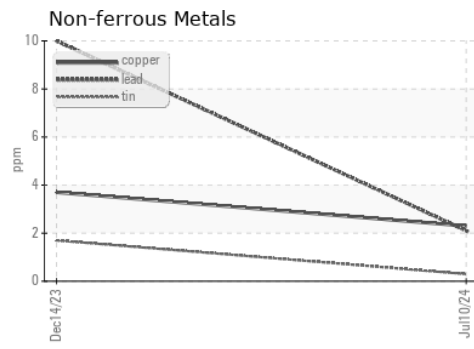
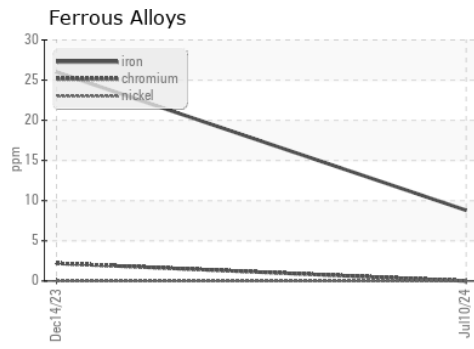
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	▲ 8.3	▲ 9.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0125844 **Received** : 18 Jul 2024
Lab Number : 06240075 **Tested** : 19 Jul 2024
Unique Number : 11128909 **Diagnosed** : 19 Jul 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 166 - Phenix City
 18 Old Brickyard Rd
 Phenix City, AL
 US 36869
 Contact: DEAN PEACE JR
 dean.peace@gflenv.com

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)