



OIL ANALYSIS REPORT

Sample Rating Trend

DIRT



Area
{UNASSIGNED}
 Machine Id
814032
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.

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		GFL0097802	---	---
Sample Date	Client Info		12 Feb 2024	---	---
Machine Age	Client Info		0	---	---
Oil Age	Client Info		612	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m	>100	29	---	---
Chromium	ppm ASTM D5185m	>20	1	---	---
Nickel	ppm ASTM D5185m	>4	5	---	---
Titanium	ppm ASTM D5185m		<1	---	---
Silver	ppm ASTM D5185m	>3	1	---	---
Aluminum	ppm ASTM D5185m	>20	4	---	---
Lead	ppm ASTM D5185m	>40	<1	---	---
Copper	ppm ASTM D5185m	>330	226	---	---
Tin	ppm ASTM D5185m	>15	3	---	---
Vanadium	ppm ASTM D5185m		<1	---	---
Cadmium	ppm ASTM D5185m		<1	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m		309	---	---
Barium	ppm ASTM D5185m		0	---	---
Molybdenum	ppm ASTM D5185m		119	---	---
Manganese	ppm ASTM D5185m		4	---	---
Magnesium	ppm ASTM D5185m		683	---	---
Calcium	ppm ASTM D5185m		1379	---	---
Phosphorus	ppm ASTM D5185m		740	---	---
Zinc	ppm ASTM D5185m		829	---	---
Sulfur	ppm ASTM D5185m		2779	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	>25	▲ 69	---	---
Sodium	ppm ASTM D5185m		0	---	---
Potassium	ppm ASTM D5185m	>20	7	---	---
Fuel	% ASTM D3524	>5	0.4	---	---

INFRA-RED

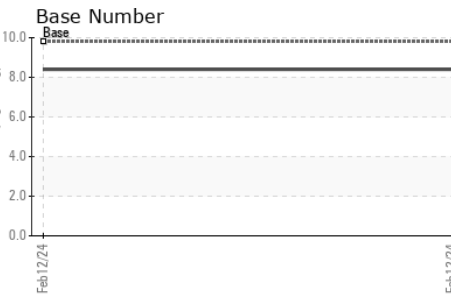
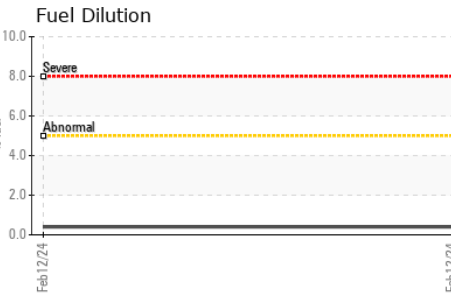
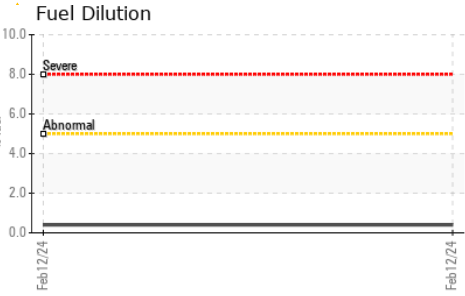
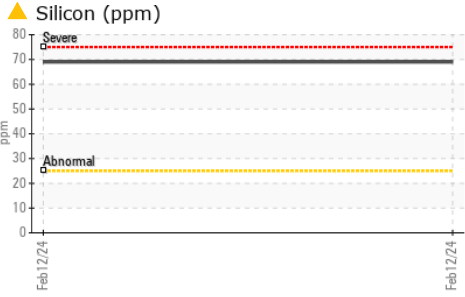
	method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm *ASTM D7624	>20	8.3	---	---
Sulfation	Abs/.1mm *ASTM D7415	>30	24.9	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	21.8	---	---
Base Number (BN)	mg KOH/g ASTM D2896	9.8	8.4	---	---



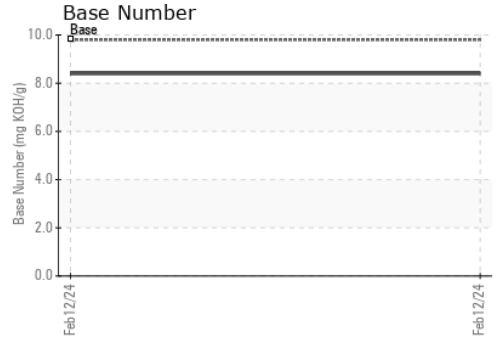
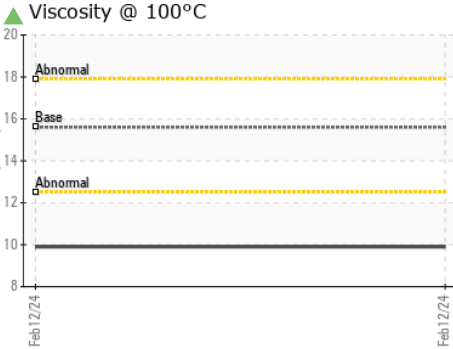
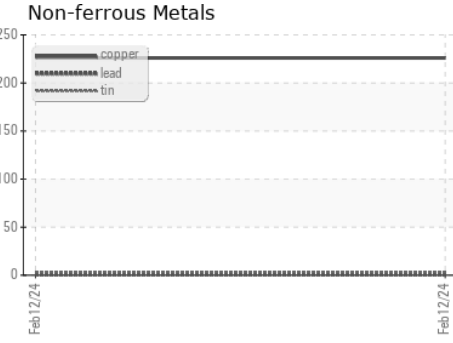
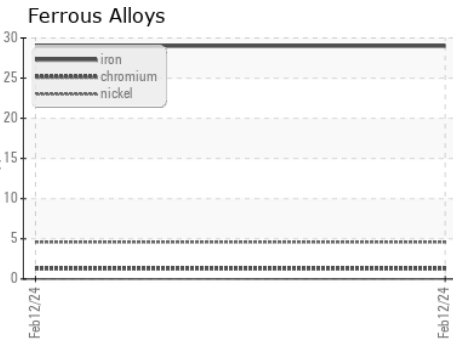
OIL ANALYSIS REPORT



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	15.6 ▲ 9.9	---	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0097802 **Received** : 15 Feb 2024
Lab Number : 06090737 **Tested** : 19 Feb 2024
Unique Number : 10883590 **Diagnosed** : 19 Feb 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 958 - Tri County HC Morton
 1090 W. Jefferson St.
 Morton, IL
 US 61550
 Contact: Bryan Link
 blink@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)

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F: