



OIL ANALYSIS REPORT

Sample Rating Trend

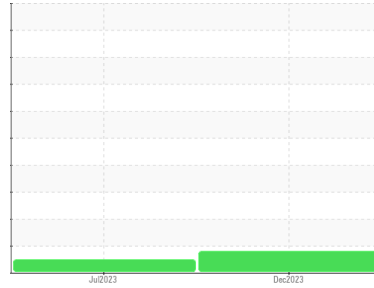
FUEL

Area
(H917015)

Machine Id
913050

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)



DIAGNOSIS

▲ Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

Metal levels are typical for a new component breaking in.

▲ Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0073347	GFL0073261	---
Sample Date	Client Info			22 Dec 2023	24 Jul 2023	---
Machine Age	hrs	Client Info		600	600	---
Oil Age	hrs	Client Info		600	600	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				MARGINAL	NORMAL	---

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	>90	20	52	---
Chromium	ppm	ASTM D5185m	>20	2	2	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m	>2	0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	13	9	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	<1	4	---
Tin	ppm	ASTM D5185m	>15	2	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	12	6	---
Barium	ppm	ASTM D5185m	0	0	3	---
Molybdenum	ppm	ASTM D5185m	60	79	63	---
Manganese	ppm	ASTM D5185m	0	<1	2	---
Magnesium	ppm	ASTM D5185m	1010	844	1029	---
Calcium	ppm	ASTM D5185m	1070	1006	1159	---
Phosphorus	ppm	ASTM D5185m	1150	936	1074	---
Zinc	ppm	ASTM D5185m	1270	1196	1330	---
Sulfur	ppm	ASTM D5185m	2060	2832	3903	---

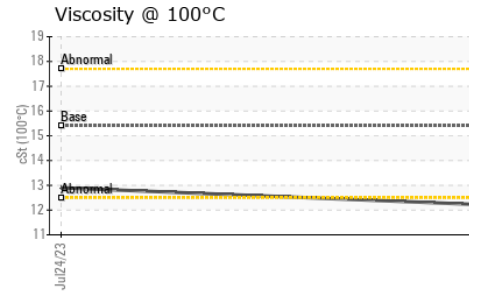
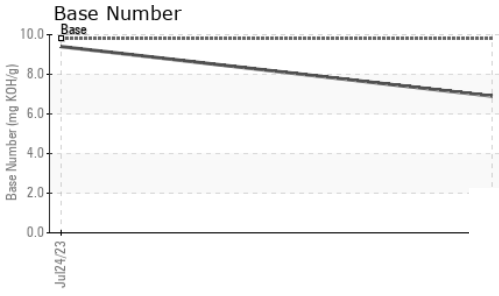
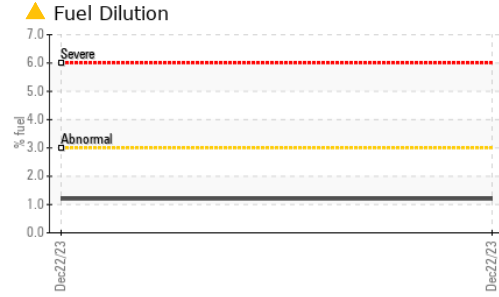
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	7	---
Sodium	ppm	ASTM D5185m		3	2	---
Potassium	ppm	ASTM D5185m	>20	32	19	---
Fuel	%	ASTM D3524	>3.0	▲ 1.2	<1.0	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.6	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.5	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	20.1	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.3	15.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.9	9.4	---



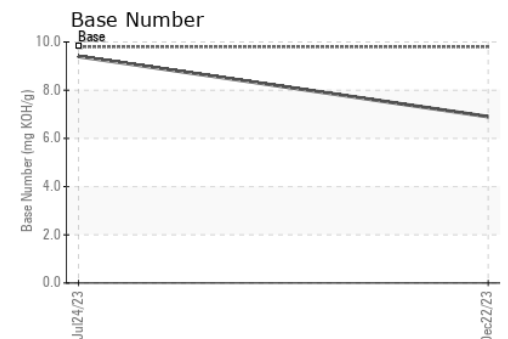
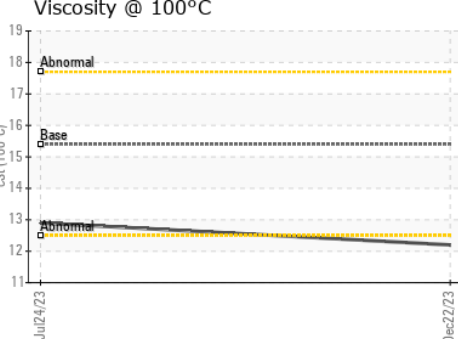
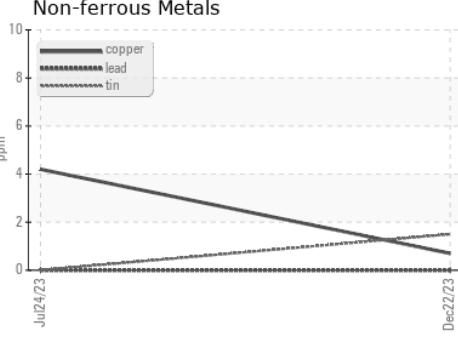
OIL ANALYSIS REPORT



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	15.4	12.2	12.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0073347 **Received** : 28 Dec 2023
Lab Number : 06046802 **Diagnosed** : 02 Jan 2024
Unique Number : 10807410 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 102 - Morristown TN
 415 Ryder Lane, PO Box 1894
 Morristown, TN
 US 37813
 Contact: Ricky Dunlap
 ricky.dunlap@gflenv.com
 T: (800)207-6618
 F:

Certificate L2367
 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)