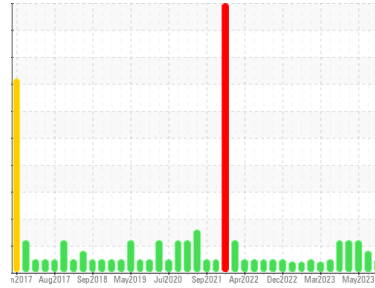




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
10690

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 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 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	history 1	history 2
Sample Number	Client Info		GFL0083224	GFL0083245	GFL0082896
Sample Date	Client Info		22 Jun 2023	06 Jun 2023	15 May 2023
Machine Age	hrs	Client Info	18982	18829	18641
Oil Age	hrs	Client Info	1215	480	292
Oil Changed	Client Info		Not Changed	Changed	Not Changed
Sample Status			NORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >75	22	47	44
Chromium	ppm	ASTM D5185m >5	<1	1	1
Nickel	ppm	ASTM D5185m >4	<1	0	0
Titanium	ppm	ASTM D5185m >2	<1	<1	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >15	2	7	6
Lead	ppm	ASTM D5185m >25	<1	<1	0
Copper	ppm	ASTM D5185m >100	19	▲ 142	▲ 177
Tin	ppm	ASTM D5185m >4	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	22	10	13
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	63	57	60
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	724	749	781
Calcium	ppm	ASTM D5185m 1070	1089	1099	1097
Phosphorus	ppm	ASTM D5185m 1150	913	854	911
Zinc	ppm	ASTM D5185m 1270	1086	1109	1129
Sulfur	ppm	ASTM D5185m 2060	2894	2911	3067

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	5	7	6
Sodium	ppm	ASTM D5185m	0	9	7
Potassium	ppm	ASTM D5185m >20	<1	1	2

INFRA-RED

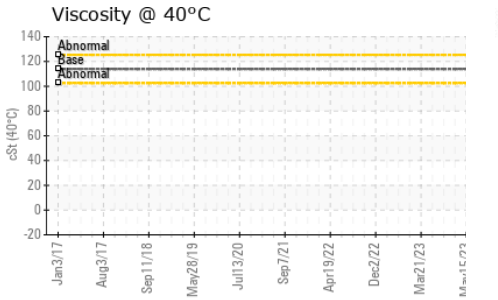
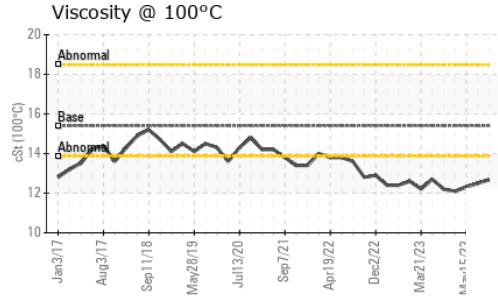
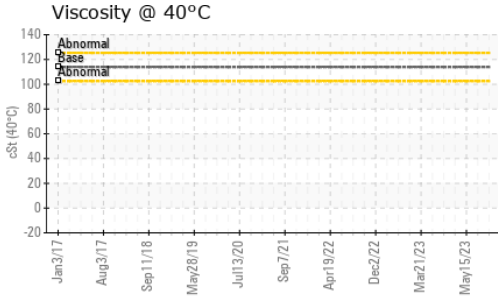
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >6	1	1.8	1.7
Nitration	Abs/cm	*ASTM D7624 >20	6.3	8.2	8.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.7	20.6	20.7

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	13.0	12.5	12.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.1	7.4	7.1



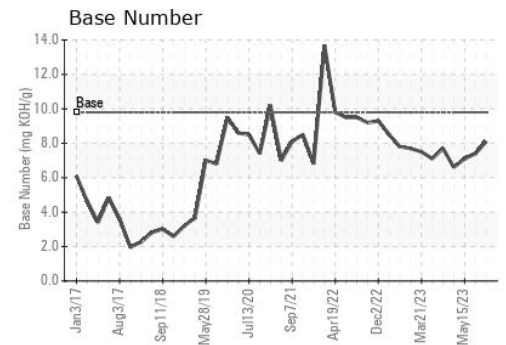
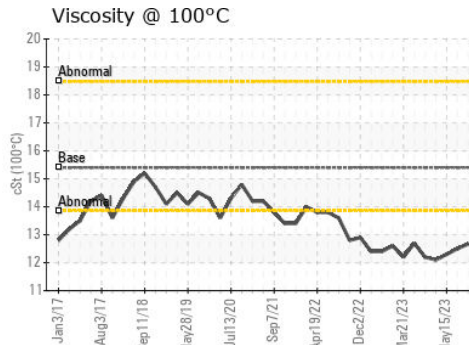
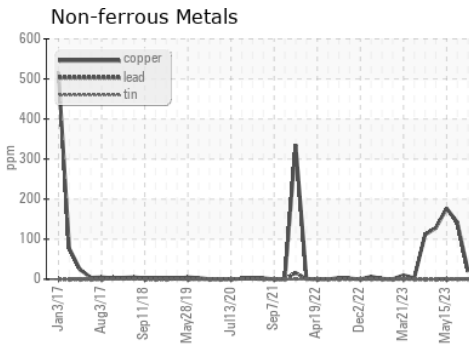
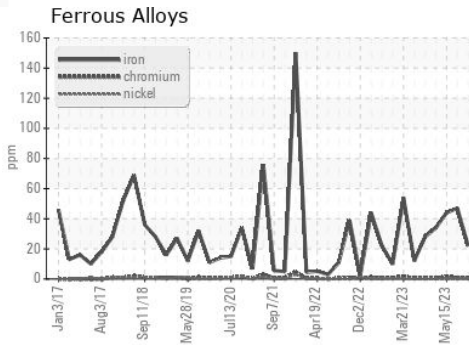
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	12.67	12.5 ▲ 12.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0083224
 Lab Number : 05883728
 Unique Number : 10534211
 Test Package : FLEET (Additional Tests: KV40)

GFL Environmental - 010 - Stockbridge
 1280 Rum Creek Parkway
 Stockbridge, GA
 US 30281
 Contact: JOSHUA TINKER
 joshuatinker@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: