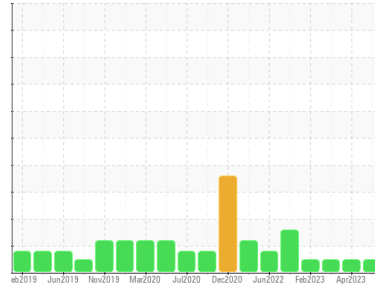




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
425061-402314

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- 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	history1	history2
Sample Number	Client Info	GFL0070330	GFL0070339	GFL0070198
Sample Date	Client Info	25 Apr 2023	17 Apr 2023	20 Mar 2023
Machine Age	hrs	23632	23556	23303
Oil Age	hrs	600	300	300
Oil Changed	Client Info	Changed	Not Changd	Not Changd
Sample Status		NORMAL	NORMAL	NORMAL

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	58	55	29
Chromium	ppm	ASTM D5185m	2	2	1
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m	7	7	3
Lead	ppm	ASTM D5185m	0	0	0
Copper	ppm	ASTM D5185m	1	0	<1
Tin	ppm	ASTM D5185m	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	1	0	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	56	61	54
Manganese	ppm	ASTM D5185m	1	1	1
Magnesium	ppm	ASTM D5185m	910	977	873
Calcium	ppm	ASTM D5185m	1004	1090	1052
Phosphorus	ppm	ASTM D5185m	963	1010	910
Zinc	ppm	ASTM D5185m	1194	1301	1148
Sulfur	ppm	ASTM D5185m	3203	3173	2929

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	6	6	5
Sodium	ppm	ASTM D5185m	7	6	4
Potassium	ppm	ASTM D5185m	0	<1	<1
Fuel	%	ASTM D3524	<1.0	<1.0	<1.0

INFRA-RED

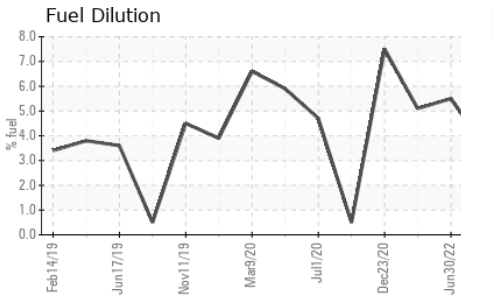
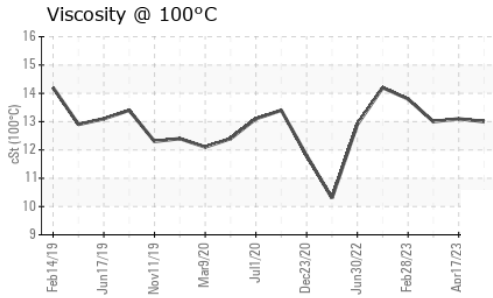
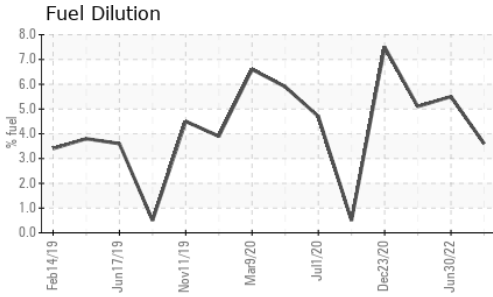
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	2.9	2.6	1.7
Nitration	Abs/cm	*ASTM D7624	14.6	14.0	11.0
Sulfation	Abs/.1mm	*ASTM D7415	27.3	26.5	22.6

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	25.2	23.2	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	4.4	6.9	9.1



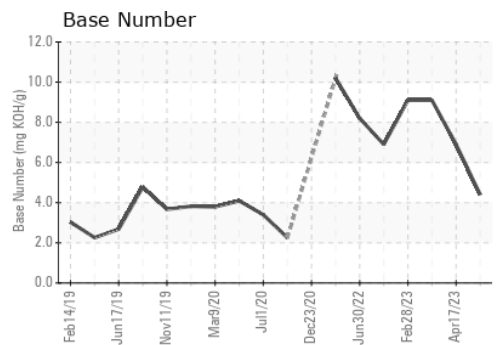
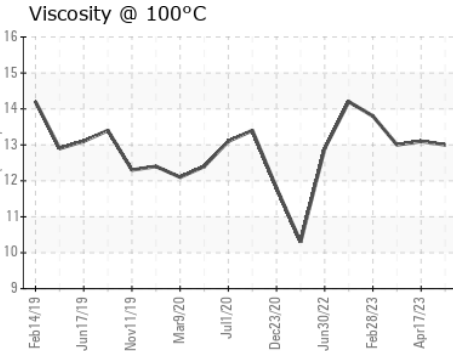
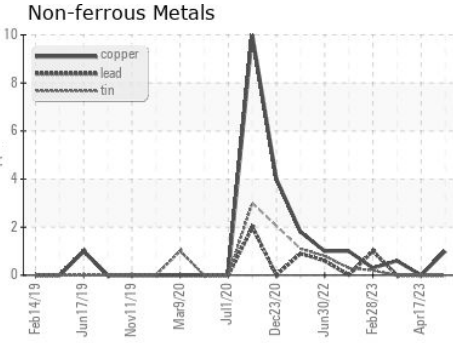
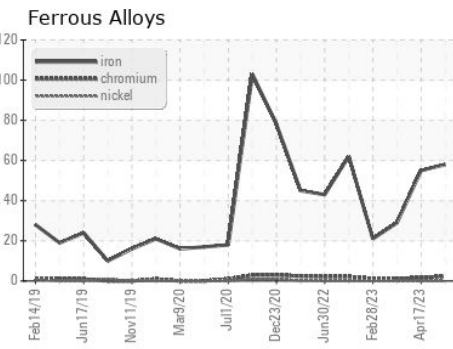
OIL ANALYSIS REPORT



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	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.0	13.1	13.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0070330 **Received** : 28 Apr 2023
Lab Number : 05832407 **Diagnosed** : 02 Oct 2023
Unique Number : 10445900 **Diagnostician** : System
Test Package : FLEET (Additional Tests: FUELDILUTION)

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Robert Hart
 rhart@gflenv.com
 T: (580)461-1509
 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)