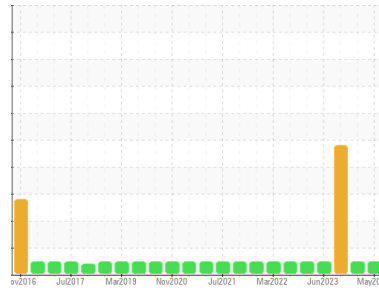




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(HH4363)

Machine Id
11263

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (4 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		GFL0115979	GFL0099836	GFL0080607
Sample Date	Client Info		21 May 2024	05 Mar 2024	15 Nov 2023
Machine Age	hrs	Client Info	0	13362	153874
Oil Age	hrs	Client Info	0	0	153874
Oil Changed	Client Info		Changed	N/A	N/A
Sample Status			NORMAL	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	4	14	83
Chromium	ppm	ASTM D5185m >20	0	<1	14
Nickel	ppm	ASTM D5185m >4	0	<1	1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	1	3	10
Lead	ppm	ASTM D5185m >40	0	<1	2
Copper	ppm	ASTM D5185m >330	0	2	▲ 257
Tin	ppm	ASTM D5185m >15	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	47	4	4
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	86	60	55
Manganese	ppm	ASTM D5185m 0	0	0	2
Magnesium	ppm	ASTM D5185m 1010	189	946	857
Calcium	ppm	ASTM D5185m 1070	2225	1067	1111
Phosphorus	ppm	ASTM D5185m 1150	1073	1017	1035
Zinc	ppm	ASTM D5185m 1270	1279	1226	1203
Sulfur	ppm	ASTM D5185m 2060	4370	3139	2949

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	6	▲ 52
Sodium	ppm	ASTM D5185m	<1	2	▲ 86
Potassium	ppm	ASTM D5185m >20	0	2	▲ 1503

INFRA-RED

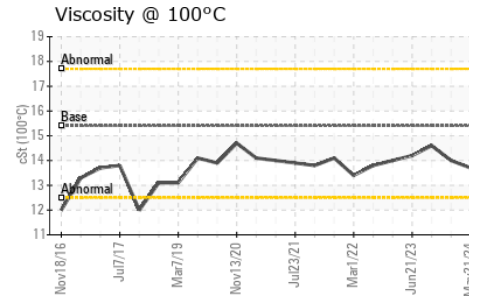
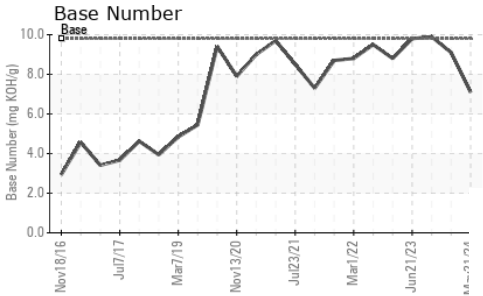
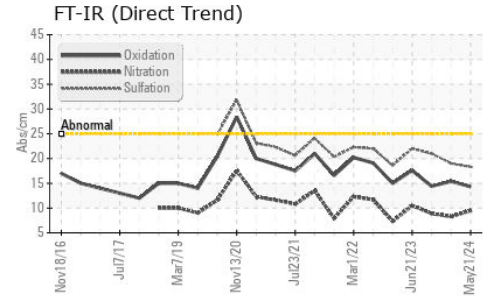
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.5	0.6	0.3
Nitration	Abs/cm	*ASTM D7624 >20	9.5	8.3	8.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.3	19.0	21.0

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.3	15.4	14.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.1	9.1	9.9



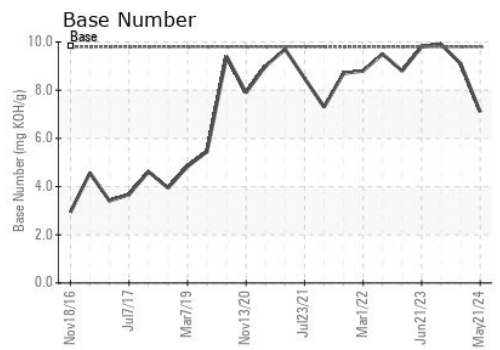
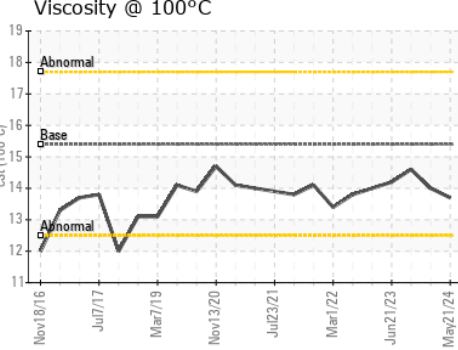
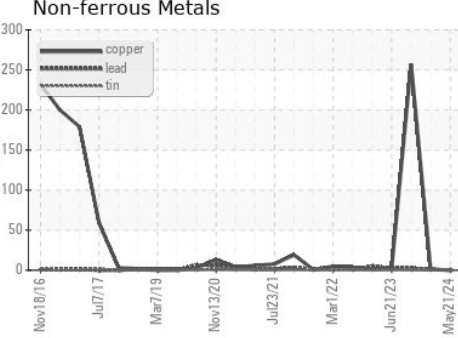
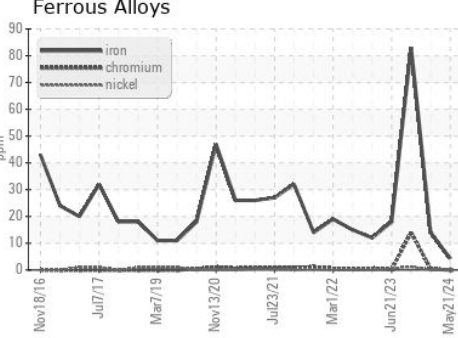
OIL ANALYSIS REPORT



PARAMETER	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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	14.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115979
Lab Number : 06187474
Unique Number : 11044226
Test Package : FLEET
Received : 22 May 2024
Tested : 23 May 2024
Diagnosed : 24 May 2024 - Don Baldrige

GFL Environmental - 018 - Fayetteville
 4621 Marracco Drive
 Hope Mills, NC
 US 28348
 Contact: Robert Carter
 robert.carter@gflenv.com
 T: (910)596-1170
 F:

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)