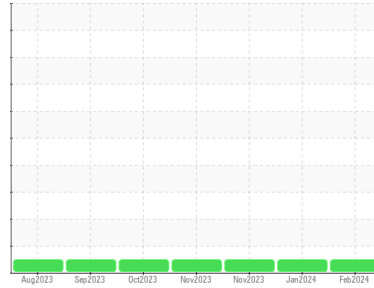




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
(42KM3B)
Machine Id
834049
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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		GFL0108072	GFL0108154	GFL0099961
Sample Date	Client Info		19 Feb 2024	12 Jan 2024	20 Nov 2023
Machine Age	hrs	Client Info	1016	841	408
Oil Age	hrs	Client Info	1016	0	0
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	64	68	12
Chromium	ppm	ASTM D5185m >4	2	1	<1
Nickel	ppm	ASTM D5185m >2	1	1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	<1	0	0
Aluminum	ppm	ASTM D5185m >9	5	5	3
Lead	ppm	ASTM D5185m >30	2	1	1
Copper	ppm	ASTM D5185m >35	15	16	5
Tin	ppm	ASTM D5185m >4	1	1	<1
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 50	4	8	9
Barium	ppm	ASTM D5185m 5	3	3	<1
Molybdenum	ppm	ASTM D5185m 50	55	54	52
Manganese	ppm	ASTM D5185m 0	13	13	<1
Magnesium	ppm	ASTM D5185m 560	744	779	589
Calcium	ppm	ASTM D5185m 1510	1214	1253	1655
Phosphorus	ppm	ASTM D5185m 780	697	719	776
Zinc	ppm	ASTM D5185m 870	912	916	990
Sulfur	ppm	ASTM D5185m 2040	2127	2268	2370

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	28	32	18
Sodium	ppm	ASTM D5185m	7	5	4
Potassium	ppm	ASTM D5185m >20	0	3	0

INFRA-RED

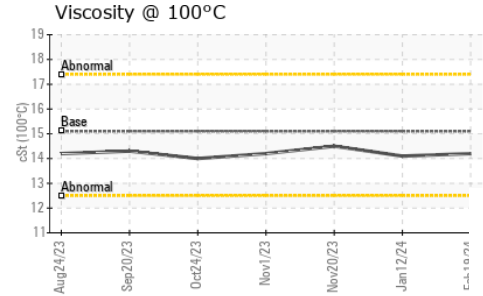
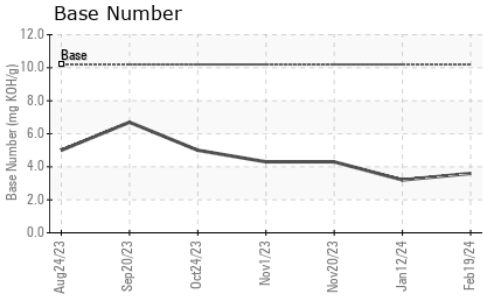
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0	0
Nitration	Abs/cm	*ASTM D7624 >20	13.1	13.2	10.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	25.7	25.2	23.4

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	23.0	22.5	19.5
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	3.6	3.2	4.3



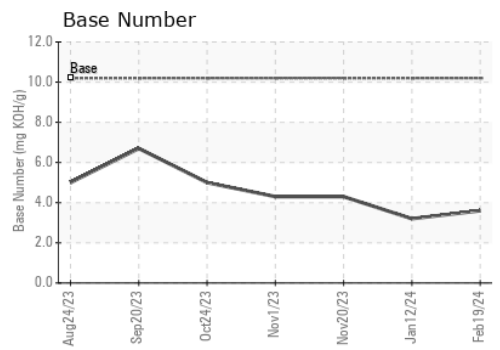
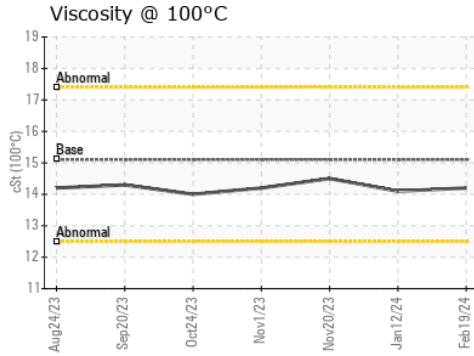
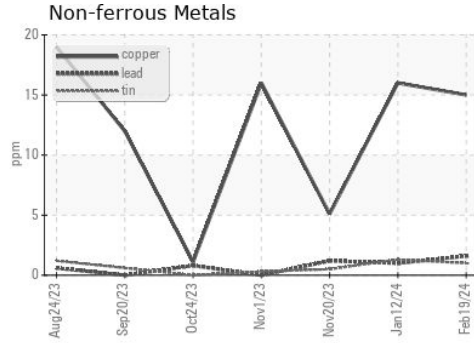
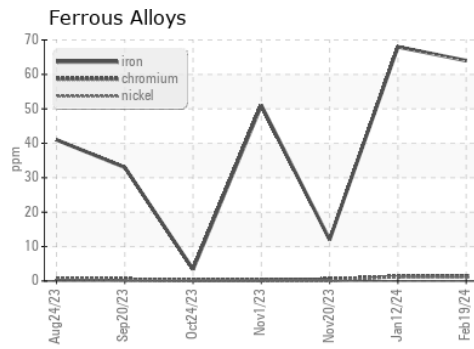
OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	14.1	14.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108072
Lab Number : **06100829**
Unique Number : 10899059
Test Package : FLEET
Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 27 Feb 2024 - Wes Davis

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Loyce Stewart
 loyce.stewart@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)