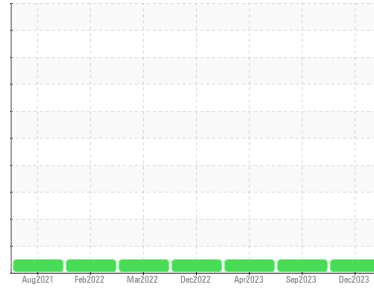




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
946011-260291

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0106971	GFL0089740	GFL0077333
Sample Date	Client Info			16 Dec 2023	12 Sep 2023	19 Apr 2023
Machine Age	hrs	Client Info		21539	21184	4035
Oil Age	hrs	Client Info		355	4717	0
Oil Changed	Client Info			Changed	Changed	Changed
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	20	5	17
Chromium	ppm	ASTM D5185m	>4	<1	0	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	<1	3	3
Lead	ppm	ASTM D5185m	>30	2	<1	0
Copper	ppm	ASTM D5185m	>35	<1	<1	5
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	2	28	6
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	57	51	54
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	560	814	609	554
Calcium	ppm	ASTM D5185m	1510	1011	1646	1498
Phosphorus	ppm	ASTM D5185m	780	887	804	711
Zinc	ppm	ASTM D5185m	870	1111	1007	1010
Sulfur	ppm	ASTM D5185m	2040	2753	3038	2671

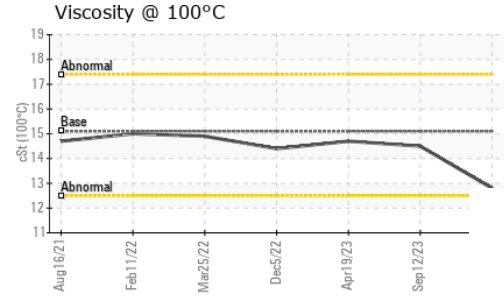
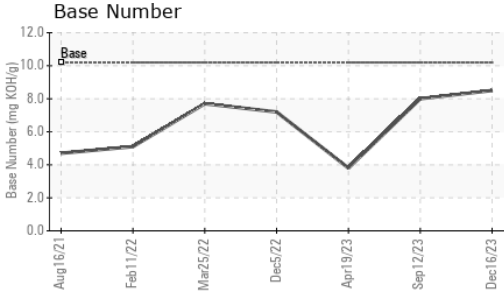
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	3	3	4
Sodium	ppm	ASTM D5185m		16	5	8
Potassium	ppm	ASTM D5185m	>20	6	2	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		1.4	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	10.0	8.5	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	17.9	23.3

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	15.1	17.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	8.5	8.0	3.8



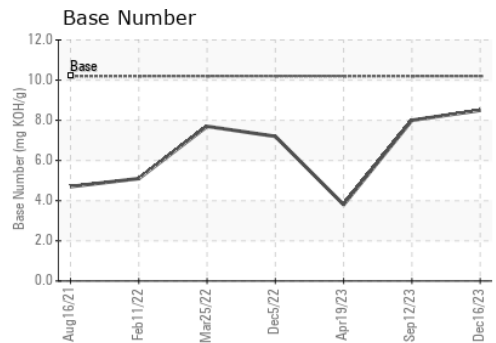
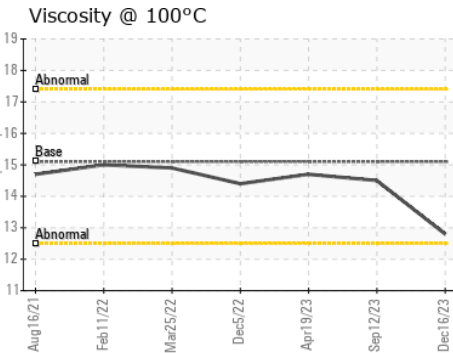
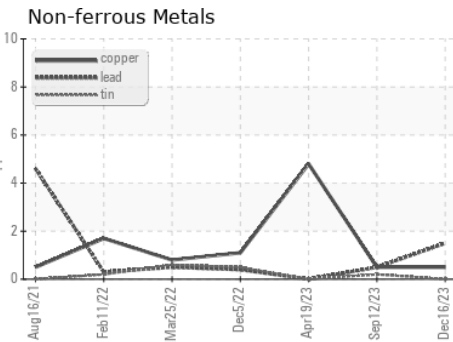
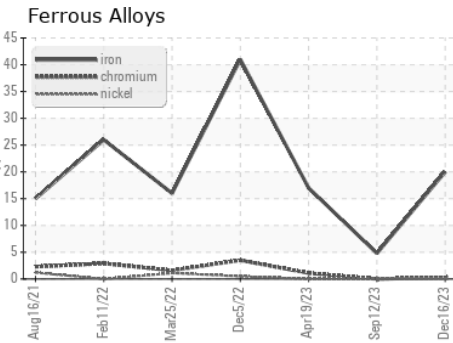
OIL ANALYSIS REPORT



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	12.8	14.5	14.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0106971 **Received** : 20 Dec 2023
Lab Number : **06040354** **Diagnosed** : 21 Dec 2023
Unique Number : 10795583 **Diagnostician** : Sean Felton
Test Package : FLEET (Additional Tests: FT-IR(Diff))

GFL Environmental - 882 - Gainesville
 5002 SW 41st Blvd
 Gainesville, FL
 US 32608
 Contact: ROBERT CLARK
 robert.clark@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: