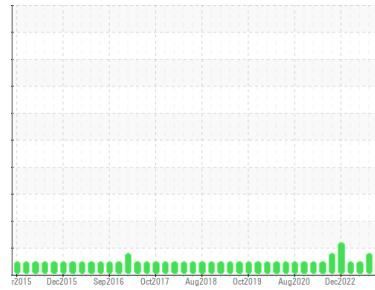




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
3588C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (48 QTS)

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		GFL0089273	GFL0094700	GFL0089264
Sample Date	Client Info		11 Oct 2023	06 Oct 2023	31 Jul 2023
Machine Age	mls	Client Info	261998	42949	1814
Oil Age	mls	Client Info	201904	0	0
Oil Changed	Client Info		N/A	Changed	Not Chngd
Sample Status			NORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		---	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	33	38	28
Chromium	ppm	ASTM D5185m >4	4	4	3
Nickel	ppm	ASTM D5185m >2	2	1	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	8	▲ 10	5
Lead	ppm	ASTM D5185m >30	8	8	2
Copper	ppm	ASTM D5185m >35	11	12	11
Tin	ppm	ASTM D5185m >4	2	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 50	5	3	4
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	57	62	59
Manganese	ppm	ASTM D5185m 0	1	<1	<1
Magnesium	ppm	ASTM D5185m 560	563	628	578
Calcium	ppm	ASTM D5185m 1510	1602	1701	1686
Phosphorus	ppm	ASTM D5185m 780	692	750	671
Zinc	ppm	ASTM D5185m 870	981	1081	977
Sulfur	ppm	ASTM D5185m 2040	2330	2676	2814

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	19	19	17
Sodium	ppm	ASTM D5185m	47	57	50
Potassium	ppm	ASTM D5185m >20	15	13	9

INFRA-RED

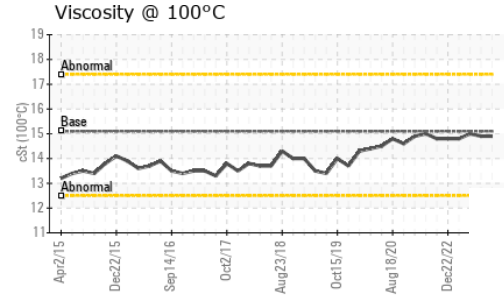
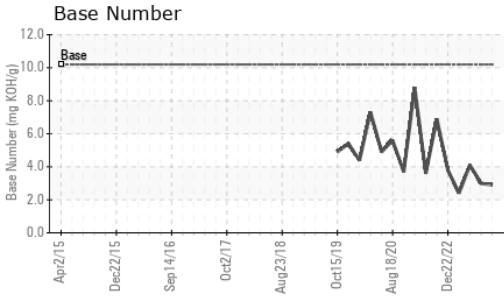
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	12.3	12.2	10.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	26.2	25.8	22.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	22.2	21.9	19.4
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	2.9	3.0	4.1



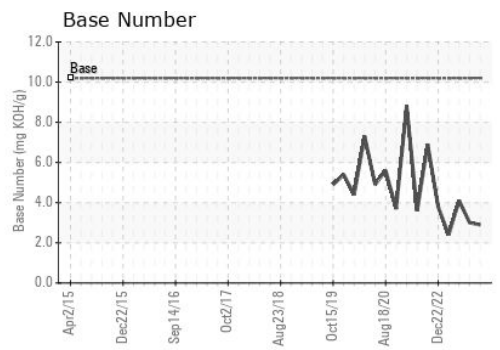
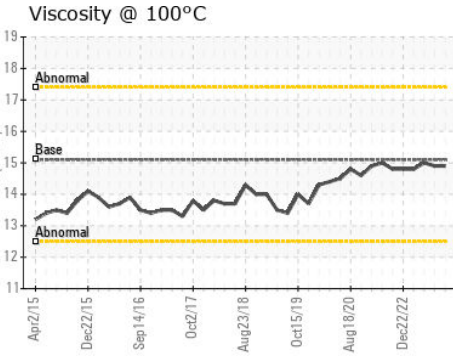
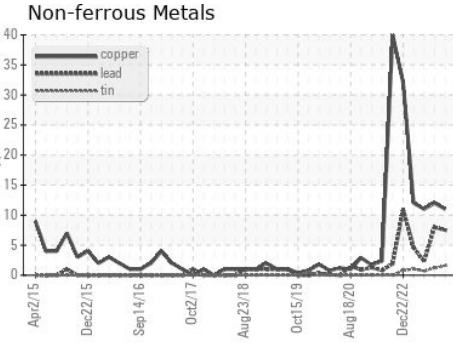
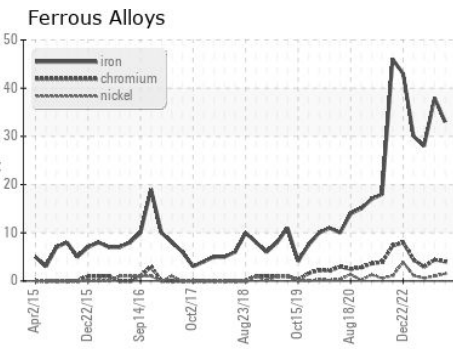
OIL ANALYSIS REPORT



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	>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	14.9	14.9	15.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0089273 **Received** : 13 Oct 2023
Lab Number : **05978074** **Diagnosed** : 13 Oct 2023
Unique Number : 10695369 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 001 - Raleigh(CNG)
 3741 Conquest Drive
 Garner, NC
 US 27529
 Contact: Craig Johnson
 craig.johnson@gflenv.com
 T: (919)662-7100
 F: (919)662-7130

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)