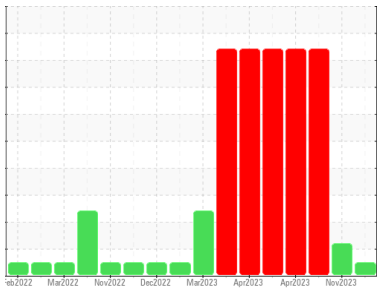
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
948012-205266
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. (Customer Sample Comment: OIL SAMPLE)

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 acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0092070**	GFL0084628	GFL0078161
Sample Date		Client Info		**02 Dec 2023**	30 Nov 2023	04 May 2023
Machine Age	mls	Client Info		**146880**	1658	16589
Oil Age	mls	Client Info		**43063**	600	0
Oil Changed		Client Info		**Not Changd**	Changed	Not Changd
Sample Status				**NORMAL**	ATTENTION	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG
Glycol		WC Method		**---**	---	0.10

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**3**	15	41
Chromium	ppm	ASTM D5185m	>4	**<1**	1	3
Nickel	ppm	ASTM D5185m	>2	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>9	**1**	4	7
Lead	ppm	ASTM D5185m	>30	**0**	<1	1
Copper	ppm	ASTM D5185m	>35	**0**	<1	6
Tin	ppm	ASTM D5185m	>4	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**44**	6	15
Barium	ppm	ASTM D5185m	5	**2**	0	0
Molybdenum	ppm	ASTM D5185m	50	**48**	58	104
Manganese	ppm	ASTM D5185m	0	**0**	<1	2
Magnesium	ppm	ASTM D5185m	560	**496**	611	677
Calcium	ppm	ASTM D5185m	1510	**1441**	1659	1901
Phosphorus	ppm	ASTM D5185m	780	**706**	749	861
Zinc	ppm	ASTM D5185m	870	**845**	1048	1163
Sulfur	ppm	ASTM D5185m	2040	**2370**	2605	3188

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**3**	5	21
Sodium	ppm	ASTM D5185m		**12**	▲ 101	▲ 1354
Potassium	ppm	ASTM D5185m	>20	**3**	16	▲ 238

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0
Nitration	Abs/cm	*ASTM D7624	>20	**6.3**	11.8	17.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.0**	23.6	27.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**15.7**	19.8	22.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**8.3**	3.9	6.0

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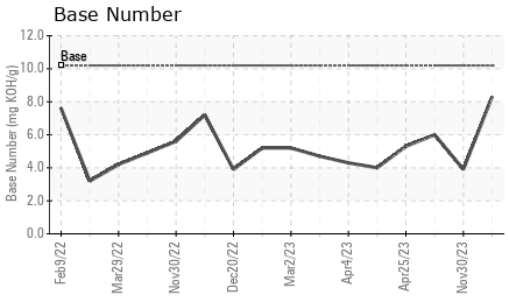
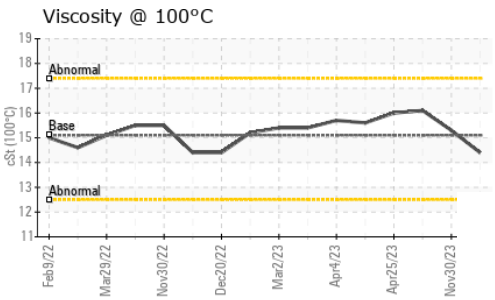
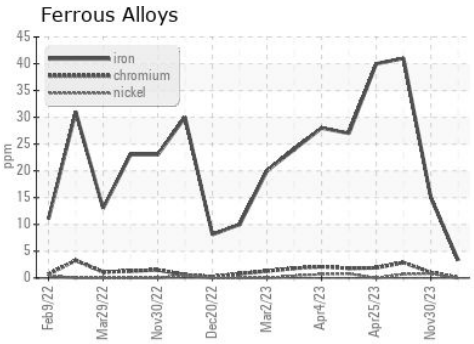


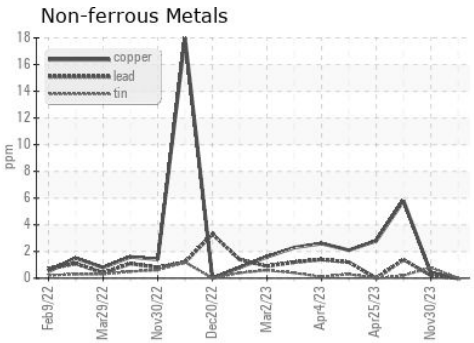


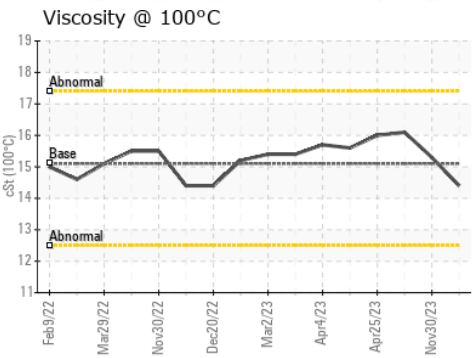
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

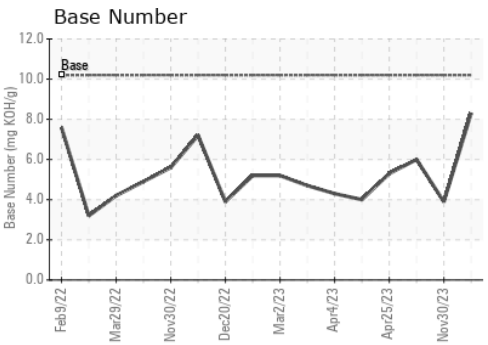
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**14.4**	15.3	16.1

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092070
Lab Number : 06025593
Unique Number : 10770093
Test Package : FLEET

Received : 05 Dec 2023
Diagnosed : 07 Dec 2023
Diagnostician : Sean Felton

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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