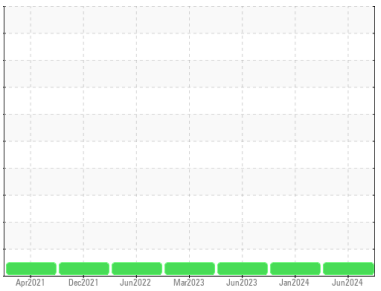
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
731011
Component
Natural Gas Engine
Fluid
CASTROL 15W40 (--- GAL)

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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0100776**	GFL0100727	GFL0079579
Sample Date		Client Info		**03 Jun 2024**	05 Jan 2024	13 Jun 2023
Machine Age	kms	Client Info		**100097**	89284	70762
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	N/A
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 D5185(m)	>50	**11**	12	9
Chromium	ppm	ASTM D5185(m)	>4	**<1**	1	<1
Nickel	ppm	ASTM D5185(m)	>2	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>9	**2**	3	2
Lead	ppm	ASTM D5185(m)	>30	**0**	4	<1
Copper	ppm	ASTM D5185(m)	>35	**1**	1	1
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**9**	8	11
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**53**	54	51
Manganese	ppm	ASTM D5185(m)		**<1**	0	<1
Magnesium	ppm	ASTM D5185(m)		**549**	572	547
Calcium	ppm	ASTM D5185(m)		**1632**	1730	1606
Phosphorus	ppm	ASTM D5185(m)		**657**	735	760
Zinc	ppm	ASTM D5185(m)		**907**	947	930
Sulfur	ppm	ASTM D5185(m)		**1950**	2093	2072
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

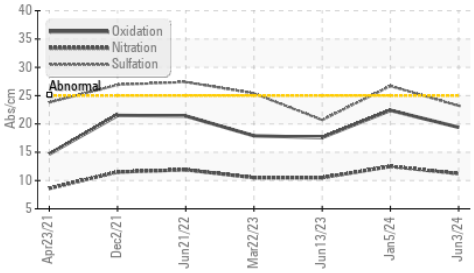
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>+100	**3**	4	3
Sodium	ppm	ASTM D5185(m)	>406	**2**	2	3
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**11.2**	12.5	10.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	**23.2**	26.7	20.7

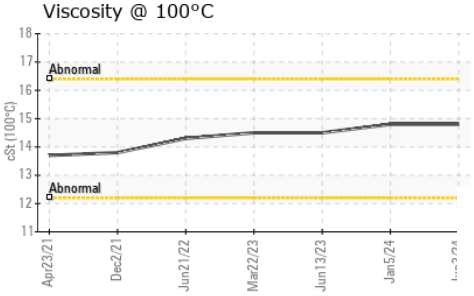
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**19.4**	22.4	17.6

OIL ANALYSIS REPORT

FT-IR (Direct Trend)



Viscosity @ 100°C

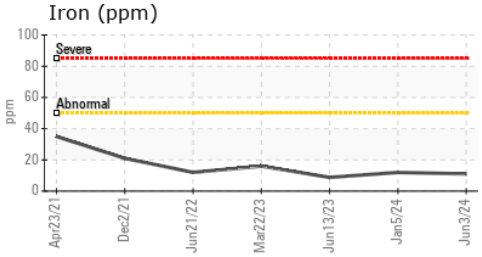


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**NONE**	---	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	---	---
Appearance	scalar	Visual*	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

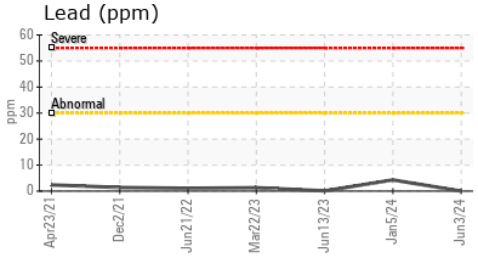
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		**14.8**	14.8	14.5

GRAPHS

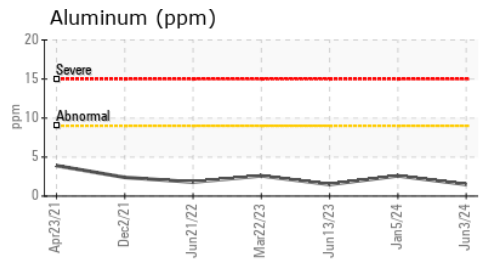
Iron (ppm)



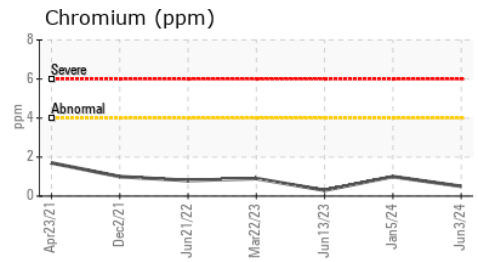
Lead (ppm)



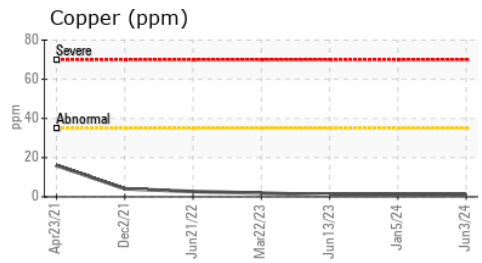
Aluminum (ppm)



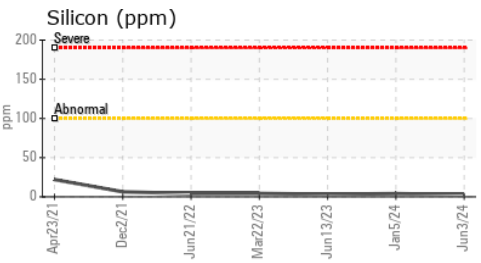
Chromium (ppm)



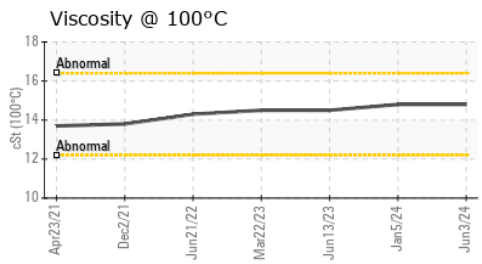
Copper (ppm)



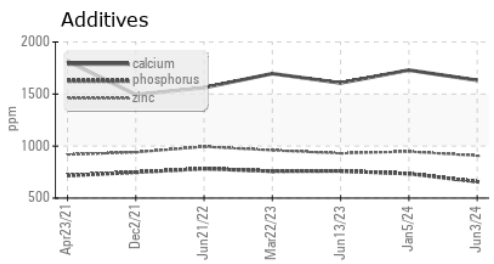
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100776
Lab Number : 02640106
Unique Number : 5789268
Test Package : MOB 1 (Additional Tests: Visual)

Received : 06 Jun 2024
Tested : 06 Jun 2024
Diagnosed : 07 Jun 2024 - Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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