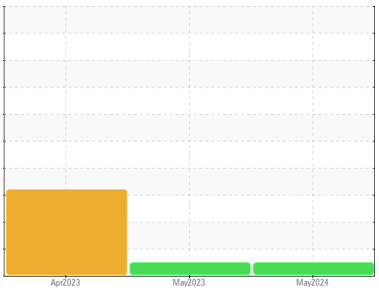
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
933013
Component
Natural Gas Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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		**GFL0119226**	GFL0079549	GFL0079534
Sample Date		Client Info		**29 May 2024**	10 May 2023	20 Apr 2023
Machine Age	hrs	Client Info		**3442**	2019	1175
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**NORMAL**	NORMAL	ABNORMAL

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	**24**	11	▲ 53
Chromium	ppm	ASTM D5185(m)	>5	**<1**	<1	1
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	2
Titanium	ppm	ASTM D5185(m)	>5	**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	**8**	3	● 13
Lead	ppm	ASTM D5185(m)	>40	**2**	<1	2
Copper	ppm	ASTM D5185(m)	>150	**2**	2	16
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	2
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)	250	**12**	29	7
Barium	ppm	ASTM D5185(m)	10	**<1**	0	2
Molybdenum	ppm	ASTM D5185(m)	100	**59**	48	57
Manganese	ppm	ASTM D5185(m)		**1**	1	11
Magnesium	ppm	ASTM D5185(m)	450	**606**	592	789
Calcium	ppm	ASTM D5185(m)	3000	**1758**	1525	1369
Phosphorus	ppm	ASTM D5185(m)	1150	**794**	819	800
Zinc	ppm	ASTM D5185(m)	1350	**965**	877	901
Sulfur	ppm	ASTM D5185(m)	4250	**2014**	2074	1950
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

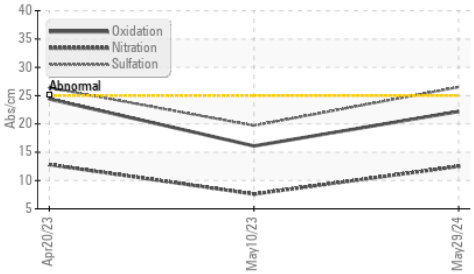
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**6**	6	▲ 30
Sodium	ppm	ASTM D5185(m)	>158	**9**	6	7
Potassium	ppm	ASTM D5185(m)	>20	**11**	<1	4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**12.5**	7.6	12.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	**26.5**	19.7	26.4

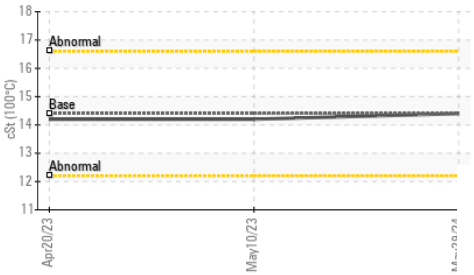
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**22.2**	16.1	24.4

OIL ANALYSIS REPORT

FT-IR (Direct Trend)



Viscosity @ 100°C

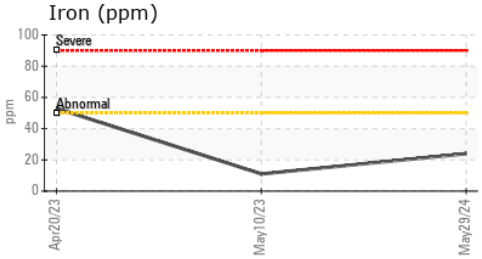


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**VLITE**	---	---
Sand/Dirt	scalar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

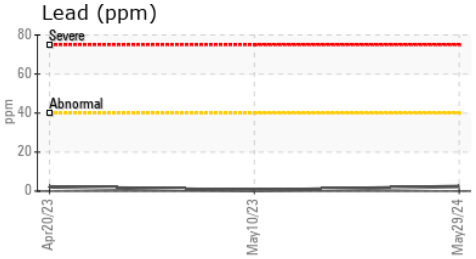
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	**14.4**	14.2	14.2

GRAPHS

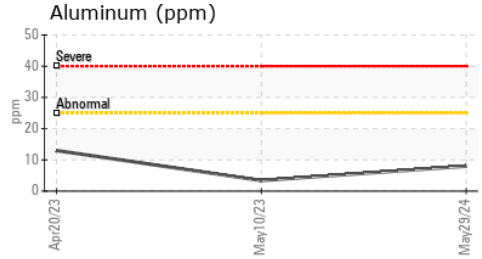
Iron (ppm)



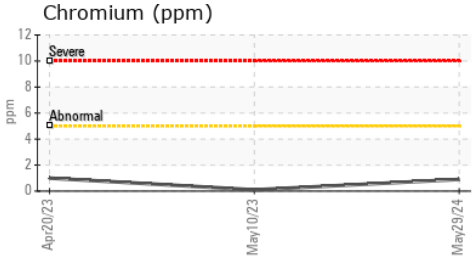
Lead (ppm)



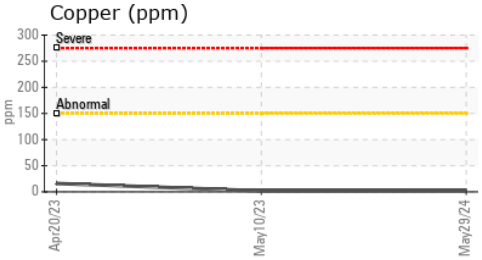
Aluminum (ppm)



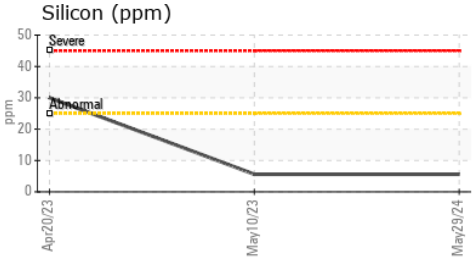
Chromium (ppm)



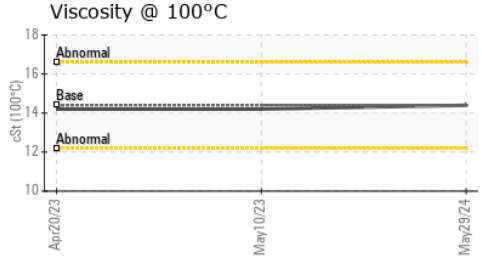
Copper (ppm)



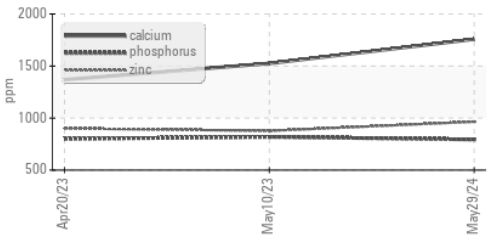
Silicon (ppm)



Viscosity @ 100°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0119226
Lab Number : 02639807
Unique Number : 5788969
Test Package : MOB 1 (Additional Tests: Visual)

Received : 05 Jun 2024
Tested : 05 Jun 2024
Diagnosed : 05 Jun 2024 - Wes Davis

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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