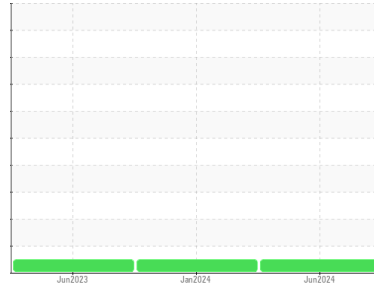




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
231003
 Component
Natural Gas Engine
 Fluid
DIESEL ENGINE OIL SAE 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		GFL0119228	GFL0102932	GFL
Sample Date	Client Info		05 Jun 2024	31 Jan 2024	07 Jun 2023
Machine Age	kms	Client Info	3092	31624	1163
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	12	15	17
Chromium	ppm	ASTM D5185(m)	>4	2	2	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<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	<1	2	2
Lead	ppm	ASTM D5185(m)	>30	0	<1	<1
Copper	ppm	ASTM D5185(m)	>35	<1	2	3
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
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	24	20	41
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	57	57	53
Manganese	ppm	ASTM D5185(m)		<1	<1	1
Magnesium	ppm	ASTM D5185(m)	450	605	625	575
Calcium	ppm	ASTM D5185(m)	3000	1764	1774	1556
Phosphorus	ppm	ASTM D5185(m)	1150	745	792	812
Zinc	ppm	ASTM D5185(m)	1350	971	1010	873
Sulfur	ppm	ASTM D5185(m)	4250	2072	2262	2138
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	2	4	6
Sodium	ppm	ASTM D5185(m)	>158	6	6	6
Potassium	ppm	ASTM D5185(m)	>20	<1	1	0

INFRA-RED

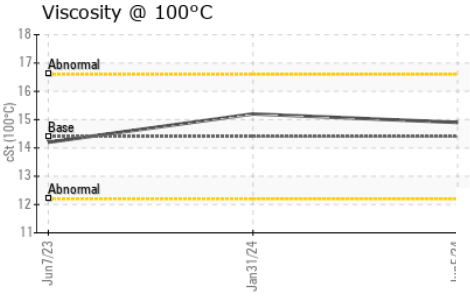
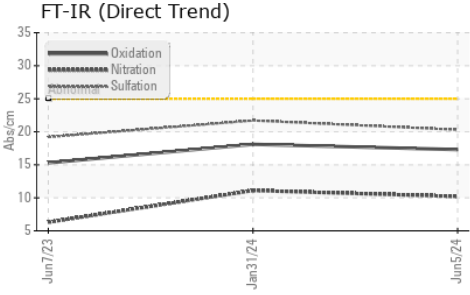
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	10.2	11.1	6.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.3	21.7	19.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.3	18.1	15.3



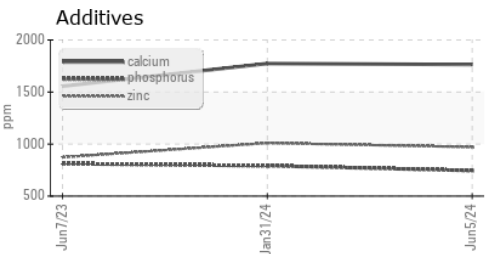
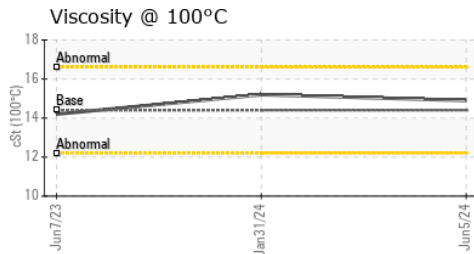
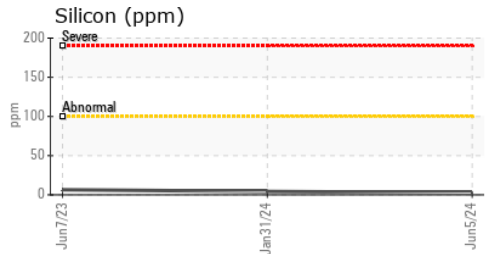
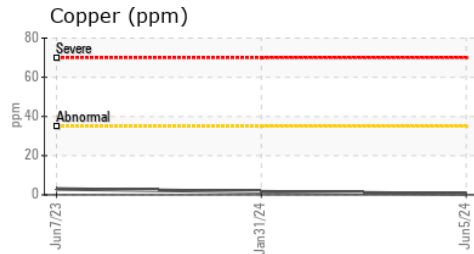
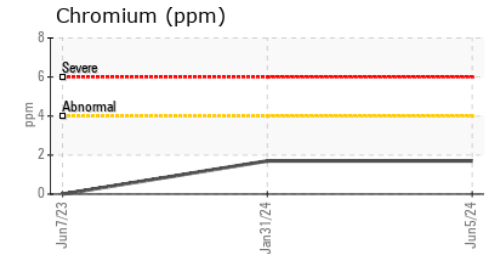
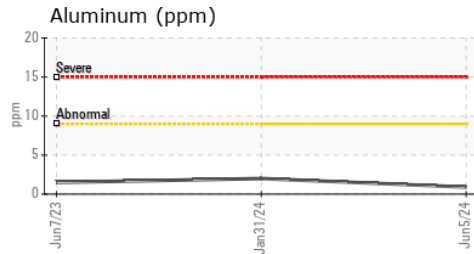
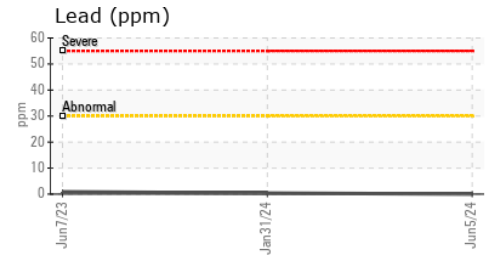
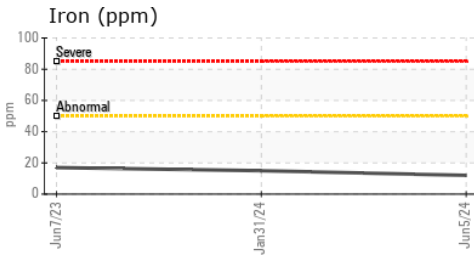
OIL ANALYSIS REPORT



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)	14.4	14.9	15.2	14.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0119228
Lab Number : 02640443
Unique Number : 5789605
Test Package : MOB 1 (Additional Tests: Visual)
Received : 07 Jun 2024
Tested : 07 Jun 2024
Diagnosed : 07 Jun 2024 - Wes Davis

GFL Environmental - 253 - TOR APT
 15 Bermondsey Road - Building B
 Toronto, ON
 CA M4B 1Y9
 Contact: Natalia Stalynska
 nstalynska@gflenv.com

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.