



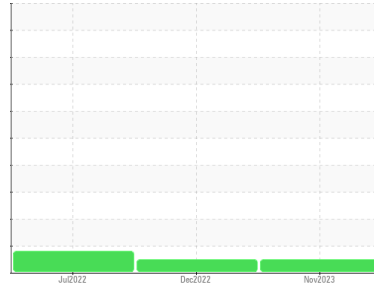
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
GFL253
 Machine Id
731034
 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

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		GFL0100348	GFL0066640	GFL0053118
Sample Date	Client Info		07 Nov 2023	14 Dec 2022	15 Jul 2022
Machine Age	hrs	Client Info	9274	22965	22965
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	22	15	▲ 52
Chromium	ppm	ASTM D5185(m)	>4	2	1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>9	2	2	3
Lead	ppm	ASTM D5185(m)	>30	4	1	4
Copper	ppm	ASTM D5185(m)	>35	2	2	11
Tin	ppm	ASTM D5185(m)	>4	<1	<1	2
Antimony	ppm	ASTM D5185(m)		0	<1	<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	14	14
Barium	ppm	ASTM D5185(m)	10	<1	0	1
Molybdenum	ppm	ASTM D5185(m)	100	57	53	76
Manganese	ppm	ASTM D5185(m)		<1	1	7
Magnesium	ppm	ASTM D5185(m)	450	600	542	635
Calcium	ppm	ASTM D5185(m)	3000	1775	1688	1531
Phosphorus	ppm	ASTM D5185(m)	1150	731	747	755
Zinc	ppm	ASTM D5185(m)	1350	1022	914	966
Sulfur	ppm	ASTM D5185(m)	4250	2062	2060	2193
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	4	4	13
Sodium	ppm	ASTM D5185(m)	>158	8	7	5
Potassium	ppm	ASTM D5185(m)	>20	<1	0	2

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.3	6.8	11.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.3	17.4	25.4

FLUID DEGRADATION

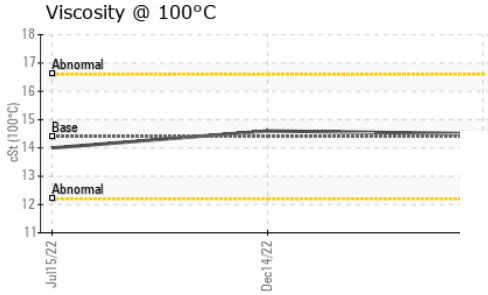
	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.2	11.2	20.5

VISUAL

	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

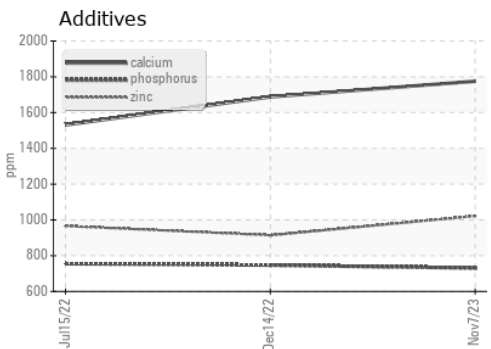
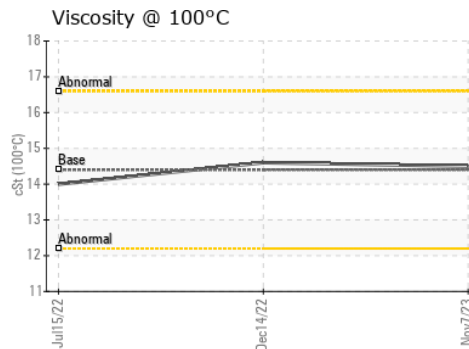
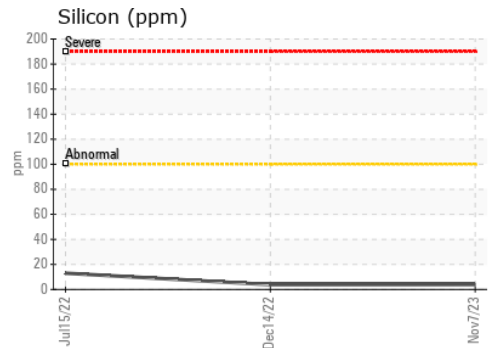
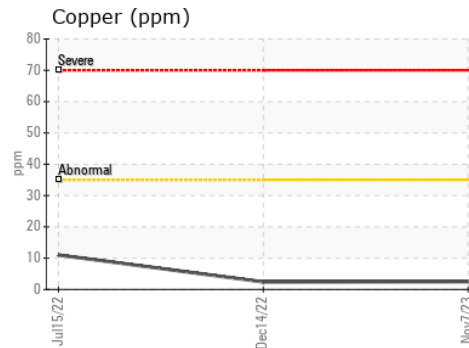
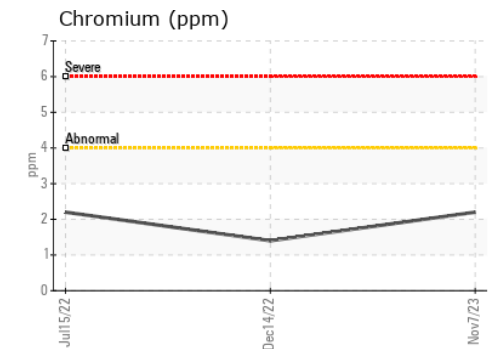
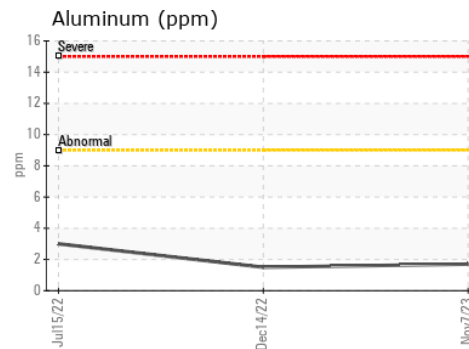
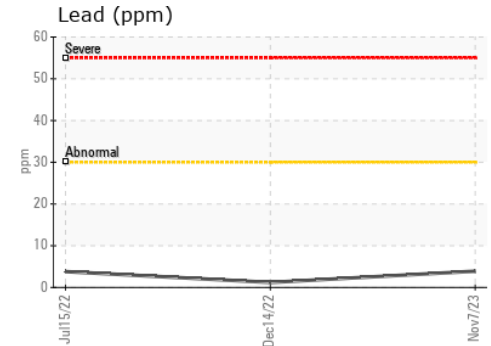
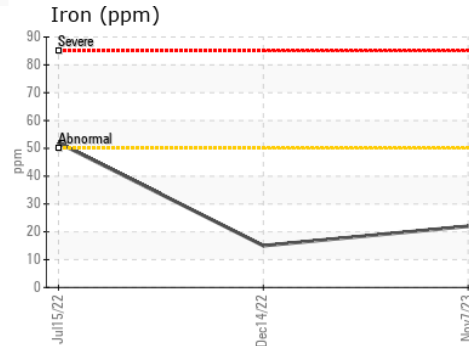


OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.5	14.6	14.0

GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100348 **Received** : 16 Nov 2023
Lab Number : 02596748 **Diagnosed** : 16 Nov 2023
Unique Number : 5681828 **Diagnostician** : Wes Davis
Test Package : MOB 1

GFL Environmental - 216
 15 Bermondsey Road
 Toronto, ON
 CA M4B 1Y9
 Contact: Tom Hatzioannidis
 thatzioannidis@gflenv.com
 T: (416)678-9340
 F:

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.