



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
210008
Component
Natural Gas Engine
Fluid
IRVING 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0051757	GFL0051726	GFL0035110
Sample Date		Client Info		02 May 2024	16 Jun 2022	08 Dec 2021
Machine Age	hrs	Client Info		4895	2956	2479
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	13	▲ 72	20
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>9	6	4	6
Lead	ppm	ASTM D5185(m)	>30	0	0	<1
Copper	ppm	ASTM D5185(m)	>35	1	2	2
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

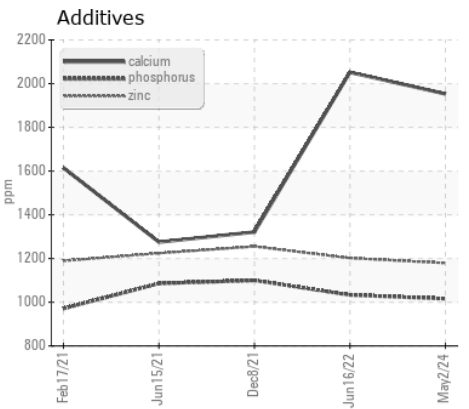
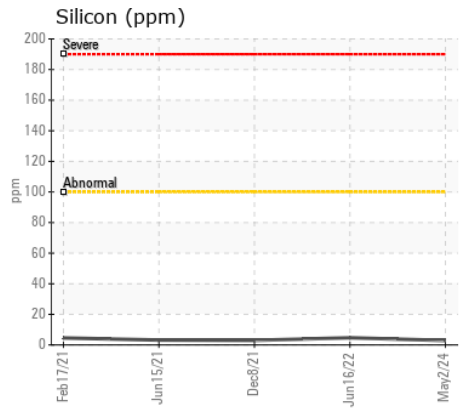
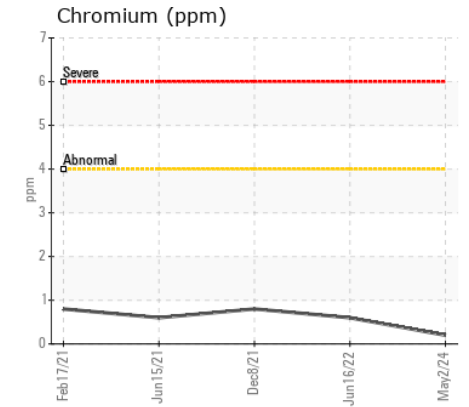
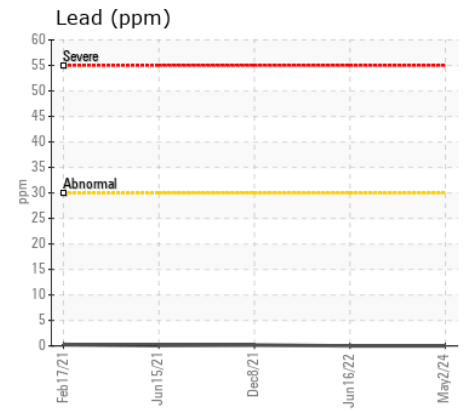
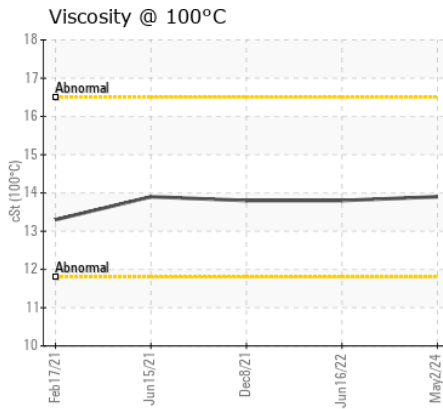
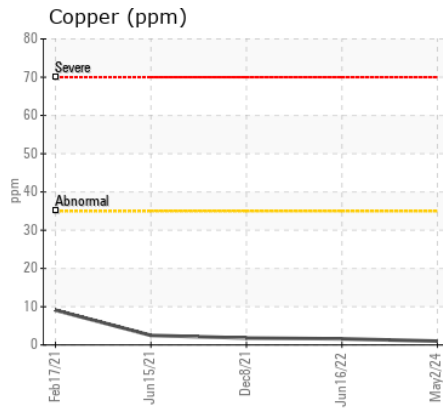
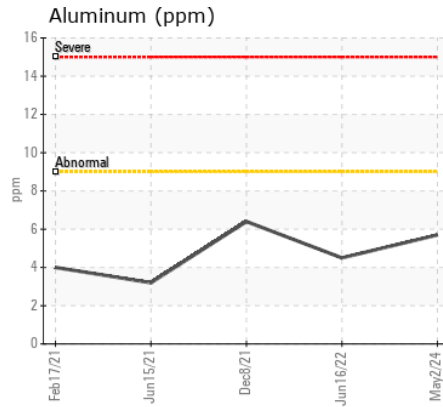
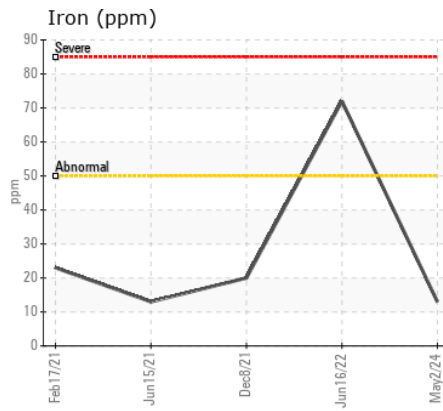
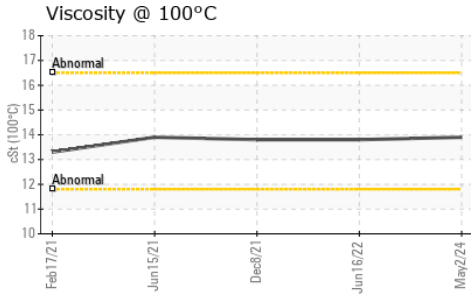
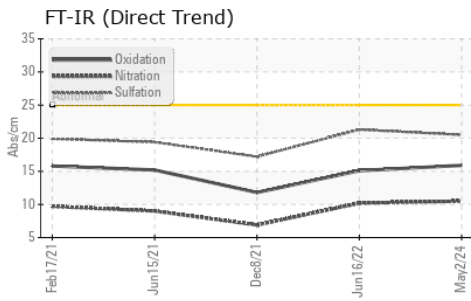
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>+100	3	5	3
Potassium	ppm	ASTM D5185(m)	>20	4	3	8
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	ASTM D7844*		0.4	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	10.5	10.2	6.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.5	21.3	17.2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>101	2	2	2
Boron	ppm	ASTM D5185(m)		33	35	13
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		17	17	50
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		245	236	830
Calcium	ppm	ASTM D5185(m)		1953	2052	1321
Phosphorus	ppm	ASTM D5185(m)		1016	1033	1100
Zinc	ppm	ASTM D5185(m)		1179	1202	1255
Sulfur	ppm	ASTM D5185(m)		3102	3217	2828
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.9	15.1	11.8
Visc @ 100°C	cSt	ASTM D7279(m)		13.9	13.8	13.8



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0051757
Lab Number : 02636331
Unique Number : 5785493
Test Package : MOB 1

Received : 17 May 2024
Tested : 17 May 2024
Diagnosed : 17 May 2024 - Wes Davis

GFL Environmental - 850 - Halifax
 20 SIMMONDS DRIVE
 DARTMOUTH, NS
 CA B3B 1R3
 Contact: Tony Yates
 tyates@gflenv.com
 T: (902)468-5551
 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.