



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834101
 Component
Natural Gas Engine
 Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

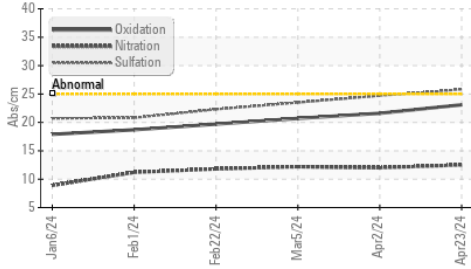
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

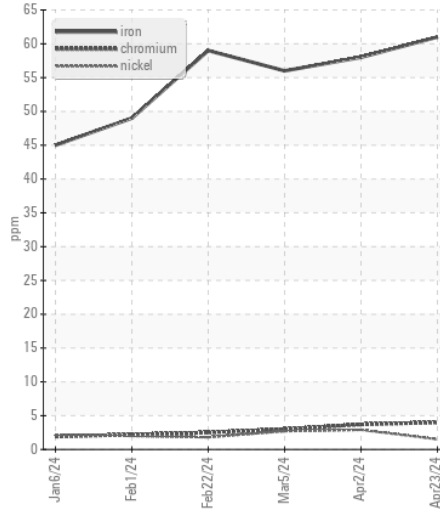
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0116619	GFL0116560	GFL0111854
Sample Date		Client Info		23 Apr 2024	02 Apr 2024	05 Mar 2024
Machine Age	hrs	Client Info		943	716	584
Oil Age	hrs	Client Info		227	716	584
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	61	58	56
Chromium	ppm	ASTM D5185m	>4	4	4	3
Nickel	ppm	ASTM D5185m	>2	2	3	3
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	85	73	60
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>35	17	15	17
Tin	ppm	ASTM D5185m	>4	1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>+100	28	26	33
Potassium	ppm	ASTM D5185m	>20	212	165	157
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0	0
Nitration	Abs/cm	*ASTM D7624	>20	12.5	12.0	12.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.8	24.7	23.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		6	7	7
Boron	ppm	ASTM D5185m		10	16	13
Barium	ppm	ASTM D5185m		2	2	2
Molybdenum	ppm	ASTM D5185m		71	65	65
Manganese	ppm	ASTM D5185m		14	14	14
Magnesium	ppm	ASTM D5185m		829	803	760
Calcium	ppm	ASTM D5185m		1380	1394	1269
Phosphorus	ppm	ASTM D5185m		749	705	636
Zinc	ppm	ASTM D5185m		966	977	865
Sulfur	ppm	ASTM D5185m		2591	2903	2261
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.1	21.6	20.7
Base Number (BN)	mg KOH/g	ASTM D2896		3.0	3.8	3.8
Visc @ 100°C	cSt	ASTM D445		14.2	14.2	14.0

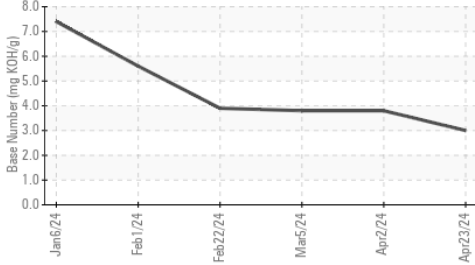
FT-IR (Direct Trend)



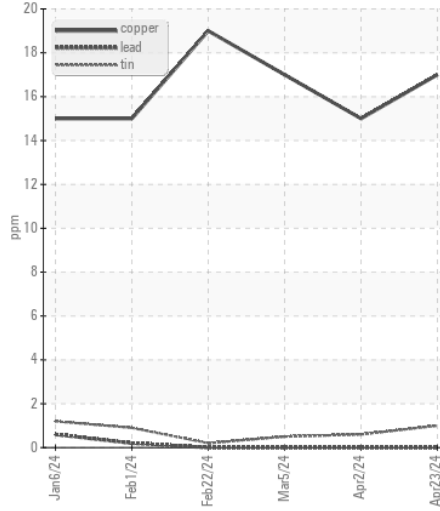
Ferrous Alloys



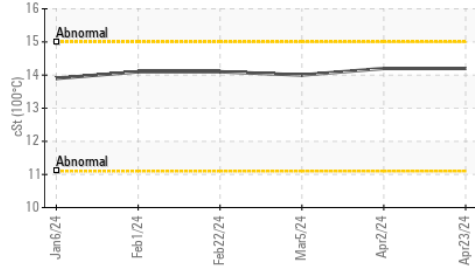
Base Number



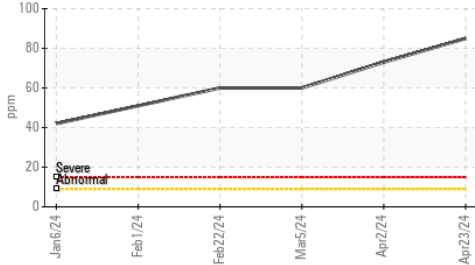
Non-ferrous Metals



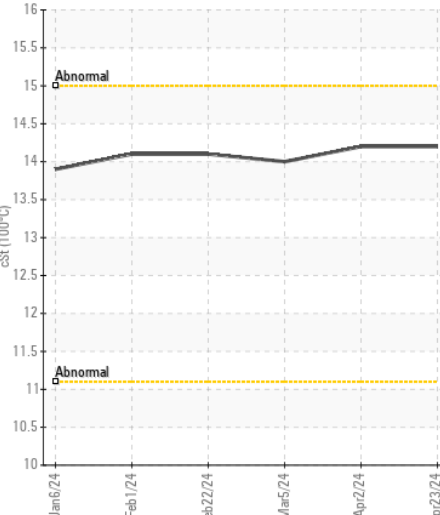
Viscosity @ 100°C



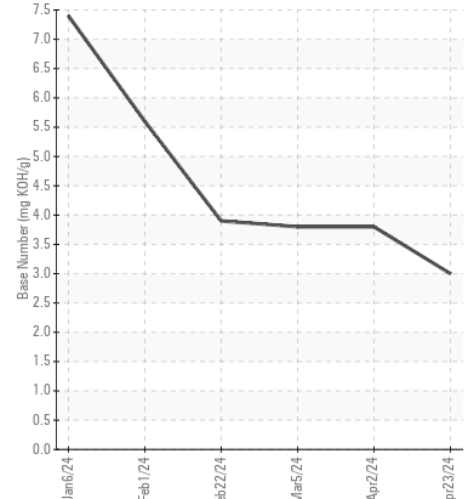
Aluminum (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116619
Lab Number : 06158944
Unique Number : 10994367
Test Package : FLEET

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

GFL Environmental - 652 - Fredericksburg Hauling
 10954 Houser Drive
 Fredericksburg, VA
 US 22408
 Contact: WILLIAM MILO
 wmiло@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: