FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834101
Component
Natural Gas Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- 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

All component wear rates are normal.

CONTAMINATION

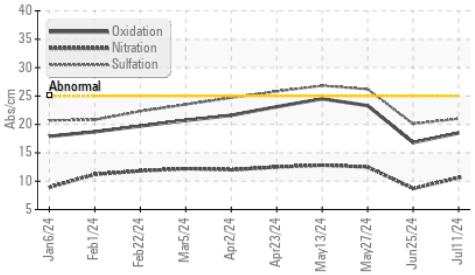
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

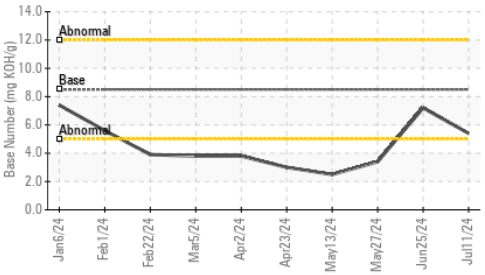
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0127191	GFL0122016	GFL0122055
Sample Date		Client Info		11 Jul 2024	25 Jun 2024	27 May 2024
Machine Age	hrs	Client Info		1501	1386	1184
Oil Age	hrs	Client Info		1299	202	957
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	15	12	96
Chromium	ppm	ASTM D5185m	>4	1	1	8
Nickel	ppm	ASTM D5185m	>2	<1	<1	5
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>9	16	15	126
Lead	ppm	ASTM D5185m	>30	<1	<1	3
Copper	ppm	ASTM D5185m	>35	3	2	23
Tin	ppm	ASTM D5185m	>4	<1	<1	2
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>+100	8	6	34
Potassium	ppm	ASTM D5185m	>20	47	32	322
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	10.6	8.7	12.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	20.1	26.2
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	>216	4	9	12
Boron	ppm	ASTM D5185m	250	10	21	12
Barium	ppm	ASTM D5185m	10	1	0	3
Molybdenum	ppm	ASTM D5185m	100	58	52	100
Manganese	ppm	ASTM D5185m		2	2	20
Magnesium	ppm	ASTM D5185m	450	598	624	1191
Calcium	ppm	ASTM D5185m	3000	1586	1529	1899
Phosphorus	ppm	ASTM D5185m	1150	713	867	1238
Zinc	ppm	ASTM D5185m	1350	1022	1065	1514
Sulfur	ppm	ASTM D5185m	4250	2322	2848	4026
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.5	16.8	23.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.4	7.2	3.4
Visc @ 100°C	cSt	ASTM D445	14.4	15.0	14.8	14.2

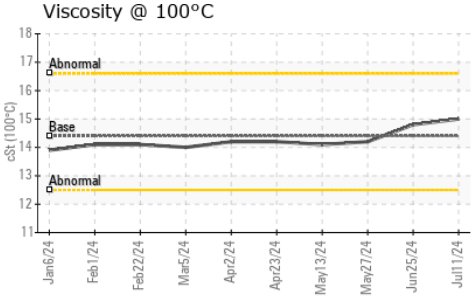
FT-IR (Direct Trend)



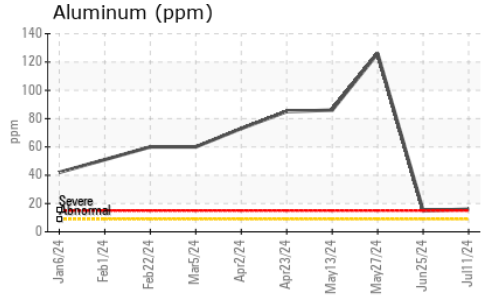
Base Number



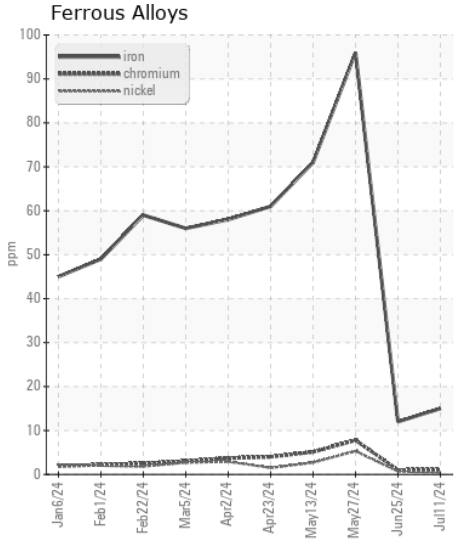
Viscosity @ 100°C



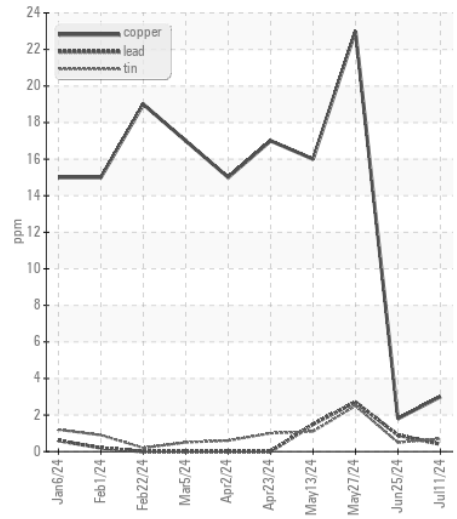
Aluminum (ppm)



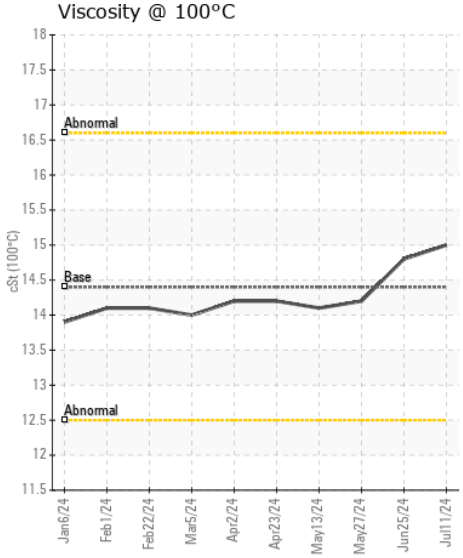
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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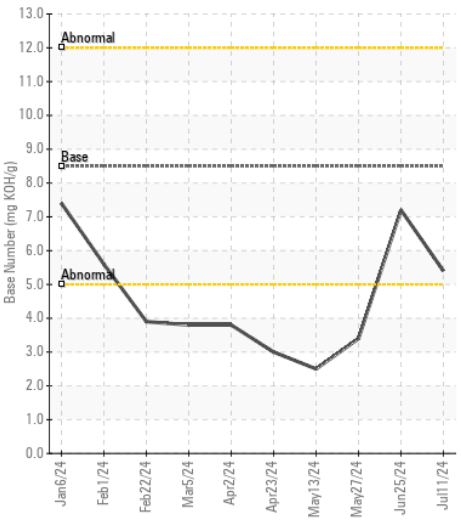

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0127191
Lab Number : 06235532
Unique Number : 11124366
Test Package : FLEET

Received : 15 Jul 2024
Tested : 15 Jul 2024
Diagnosed : 15 Jul 2024 - Wes Davis

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)

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