MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JENBACHER GM03 (S/N 1144731)
Component
Biogas Engine
Fluid
MAHLER Q8 Mahler G8 SAE 40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The iron level is abnormal. All other component wear rates are normal.

CONTAMINATION

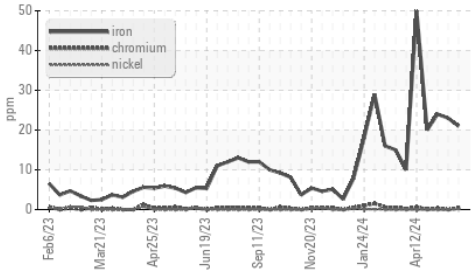
There is no indication of any contamination in the oil.

FLUID CONDITION

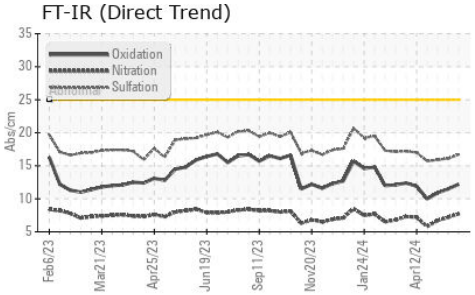
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0944452	WC0880399	WC0880403
Sample Date		Client Info		10 May 2024	01 May 2024	25 Apr 2024
Machine Age	hrs	Client Info		51599	51413	51274
Oil Age	hrs	Client Info		192	0	159
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>20	▲ 21	▲ 23	▲ 24
Chromium	ppm	ASTM D5185m	>5	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>15	3	3	3
Lead	ppm	ASTM D5185m	>20	<1	0	0
Copper	ppm	ASTM D5185m	>15	2	<1	1
Tin	ppm	ASTM D5185m	>5	2	2	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>200	22	15	11
Potassium	ppm	ASTM D5185m	>20	2	0	0
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>2	0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.7	7.2	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.7	16.1	15.9
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	>.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>20	0	<1	2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		1	0	<1
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		8	8	6
Calcium	ppm	ASTM D5185m		2423	2340	2217
Phosphorus	ppm	ASTM D5185m		481	415	392
Zinc	ppm	ASTM D5185m		495	470	434
Sulfur	ppm	ASTM D5185m		2744	2681	2479
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.2	11.5	10.9
Acid Number (AN)	mg KOH/g	ASTM D8045		0.48	1.266	0.951
Base Number (BN)	mg KOH/g	ASTM D2896	8.0	7.22	7.73	7.81
Visc @ 100°C	cSt	ASTM D445	13.2	13.3	13.2	13.0

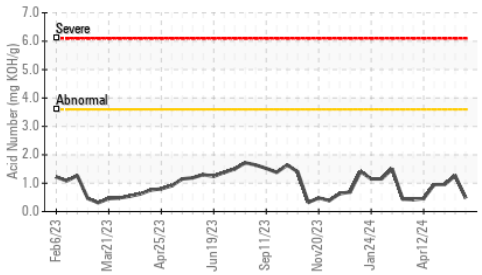
Ferrous Alloys



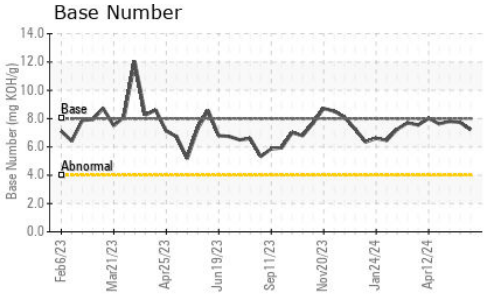
FT-IR (Direct Trend)



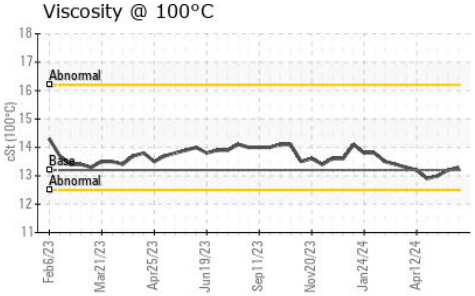
Acid Number



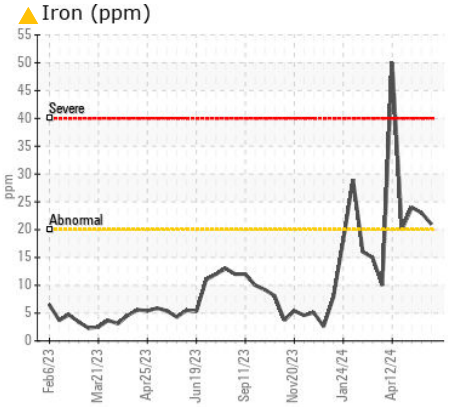
Base Number



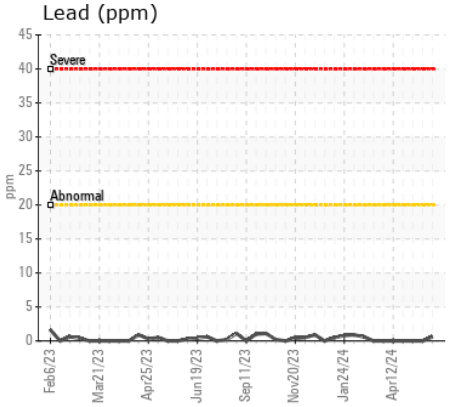
Viscosity @ 100°C



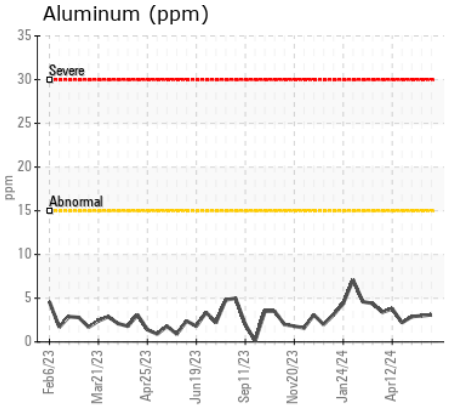
Iron (ppm)



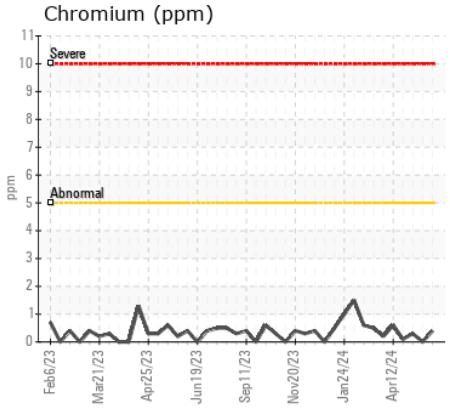
Lead (ppm)



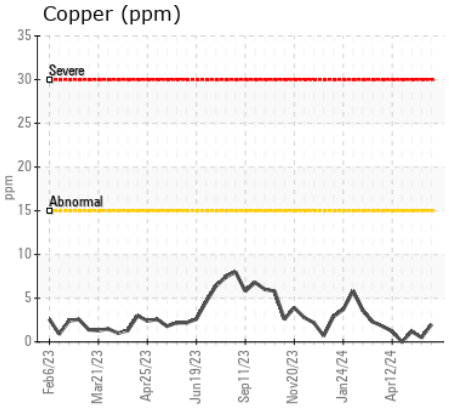
Aluminum (ppm)



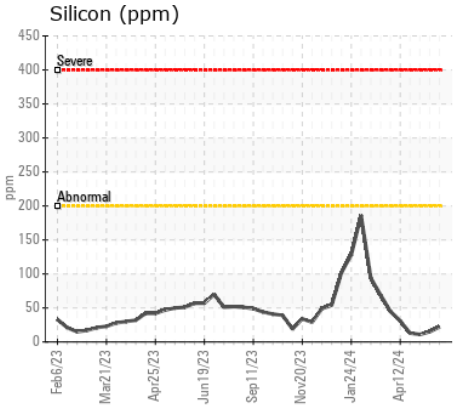
Chromium (ppm)



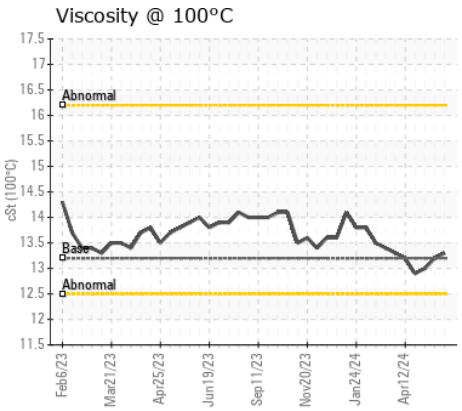
Copper (ppm)



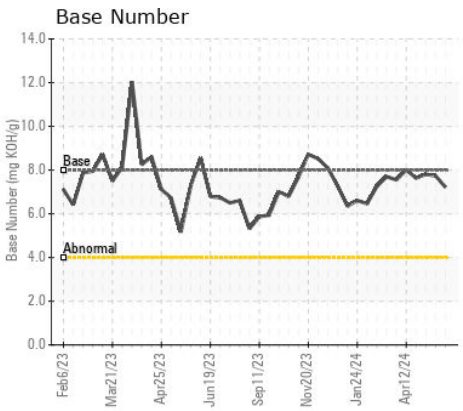
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0944452
Lab Number : 06177381
Unique Number : 11023434
Test Package : MOB 2

Received : 13 May 2024
Tested : 14 May 2024
Diagnosed : 15 May 2024 - Don Baldridge

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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