MOB I

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
LIEBHERR LH40M 156305-1215
Component
Diesel Engine
Fluid
NOT GIVEN (--- GAL)

RECOMMENDATION

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

WEAR

All component wear rates are normal.

CONTAMINATION

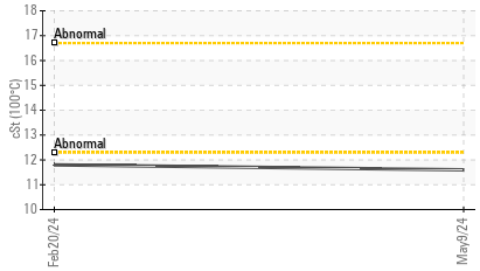
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

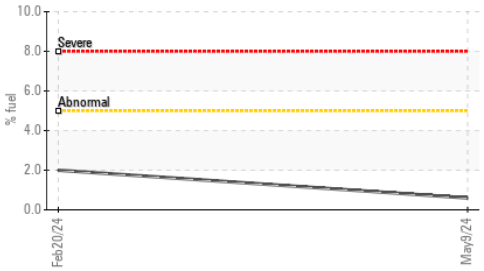
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**LH**	LH0278468	---
Sample Date		Client Info		**09 May 2024**	20 Feb 2024	---
Machine Age	hrs	Client Info		**1010**	536	---
Oil Age	hrs	Client Info		**0**	0	---
Filter Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**Changed**	Changed	---
Filter Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	MARGINAL	---
Iron	ppm	ASTM D5185(m)	>100	**5**	10	---
Chromium	ppm	ASTM D5185(m)	>5	**<1**	1	---
Nickel	ppm	ASTM D5185(m)	>5	**0**	<1	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Silver	ppm	ASTM D5185(m)	>3	**0**	0	---
Aluminum	ppm	ASTM D5185(m)	>15	**1**	2	---
Lead	ppm	ASTM D5185(m)	>30	**3**	6	---
Copper	ppm	ASTM D5185(m)	>125	**125**	95	---
Tin	ppm	ASTM D5185(m)	>5	**0**	<1	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Silicon	ppm	ASTM D5185(m)	>60	**6**	7	---
Potassium	ppm	ASTM D5185(m)	>20	**<1**	3	---
Fuel	%	ASTM D7593*	>5	**0.6**	▲ 2	---
Water		WC Method	>0.2	**NEG**	NEG	---
Glycol		WC Method		**NEG**	NEG	---
Soot %	%	ASTM D7844*	>3	**0**	0	---
Nitration	Abs/cm	ASTM D7624*	>20	**10.3**	12.6	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**23.2**	40.3	---
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	---
Sodium	ppm	ASTM D5185(m)		**4**	2	---
Boron	ppm	ASTM D5185(m)		**39**	100	---
Barium	ppm	ASTM D5185(m)		**4**	29	---
Molybdenum	ppm	ASTM D5185(m)		**57**	46	---
Manganese	ppm	ASTM D5185(m)		**<1**	<1	---
Magnesium	ppm	ASTM D5185(m)		**1062**	910	---
Calcium	ppm	ASTM D5185(m)		**867**	1355	---
Phosphorus	ppm	ASTM D5185(m)		**962**	671	---
Zinc	ppm	ASTM D5185(m)		**1132**	780	---
Sulfur	ppm	ASTM D5185(m)		**2706**	1975	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	**24.0**	53.0	---
Visc @ 100°C	cSt	ASTM D7279(m)		▲ **11.6**	11.8	---

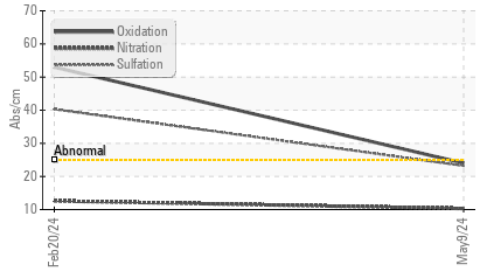
Viscosity @ 100°C



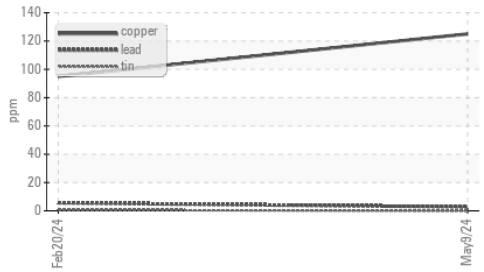
Fuel Dilution



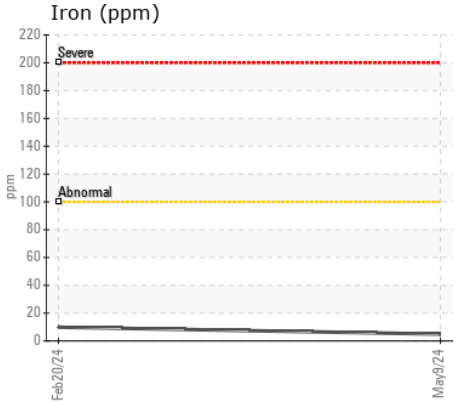
FT-IR (Direct Trend)



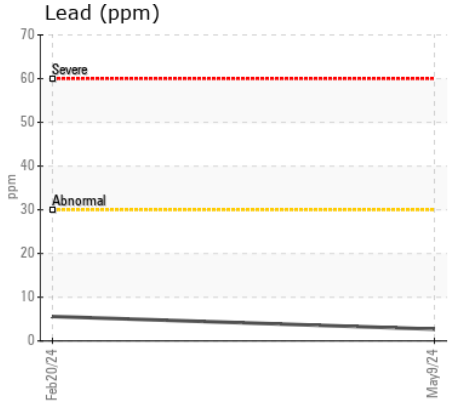
Non-ferrous Metals



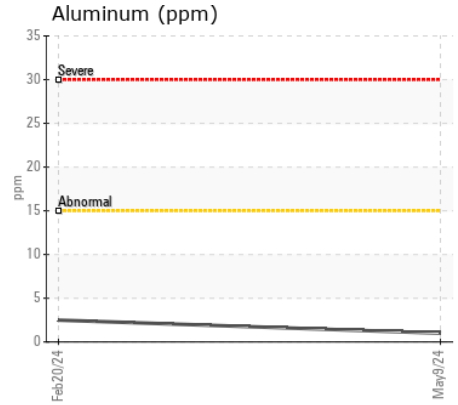
Iron (ppm)



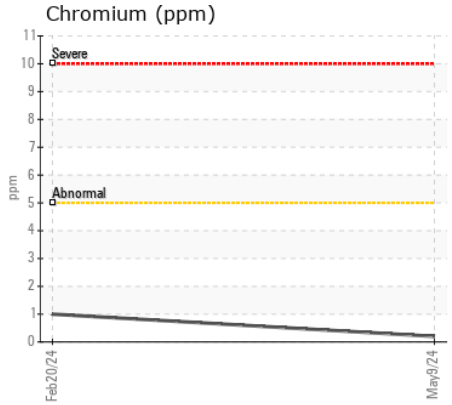
Lead (ppm)



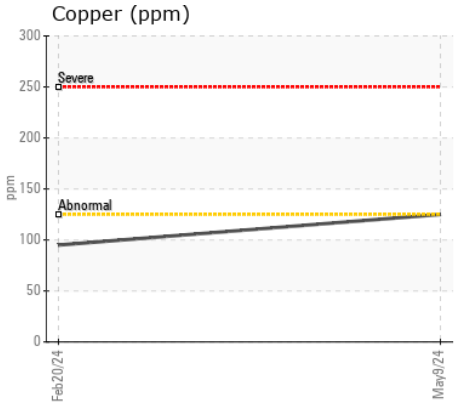
Aluminum (ppm)



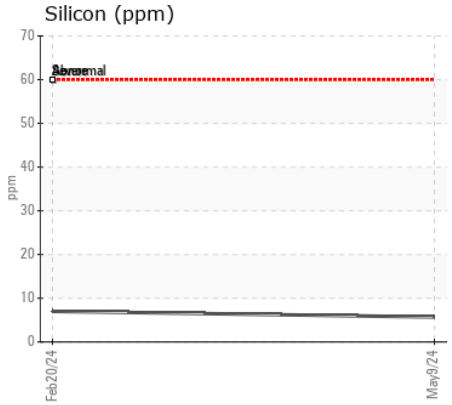
Chromium (ppm)



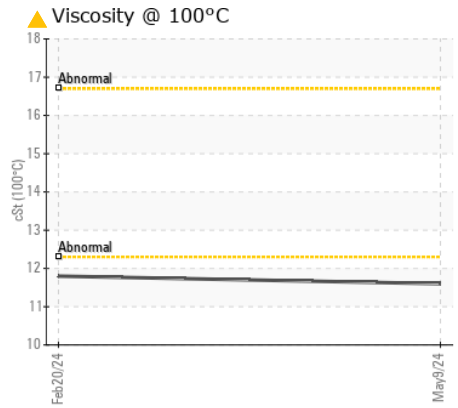
Copper (ppm)



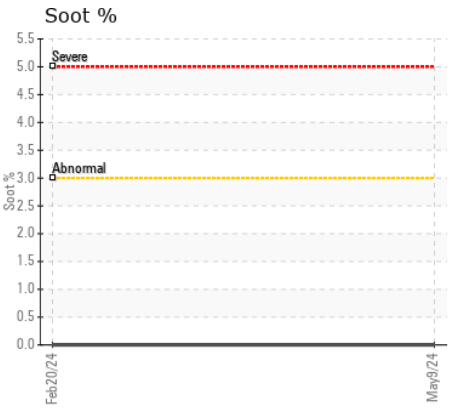
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH
Lab Number : 02635263
Unique Number : 5776416
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Received : 14 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Kevin Marson

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.

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