



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50M 144842-1216
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0270199	LH0277729	LH0251808
Sample Date		Client Info		27 Feb 2024	27 Nov 2023	09 Mar 2023
Machine Age	hrs	Client Info		2406	1853	561
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>66	3	4	12
Chromium	ppm	ASTM D5185(m)	>4	0	0	1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>8	1	1	3
Lead	ppm	ASTM D5185(m)	>10	<1	<1	7
Copper	ppm	ASTM D5185(m)	>74	2	4	120
Tin	ppm	ASTM D5185(m)	>4	0	0	1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

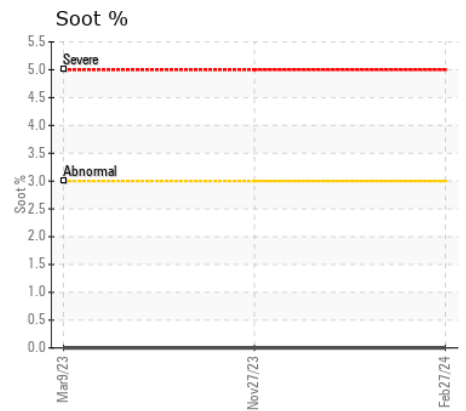
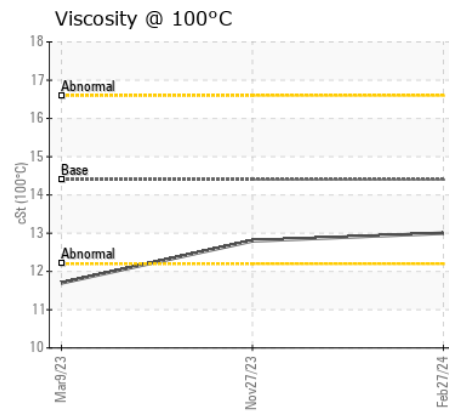
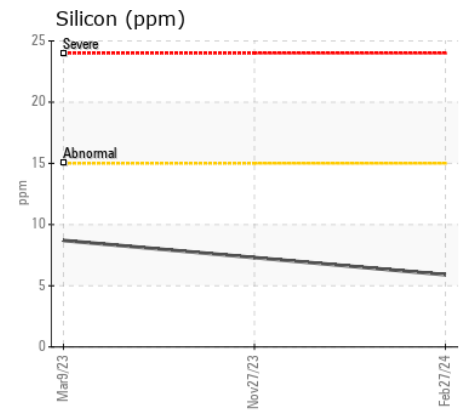
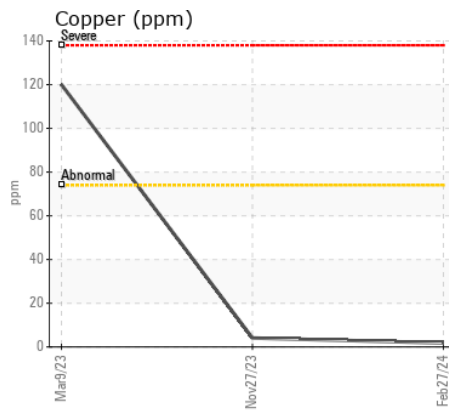
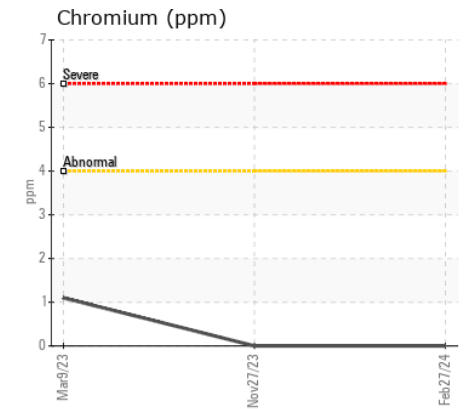
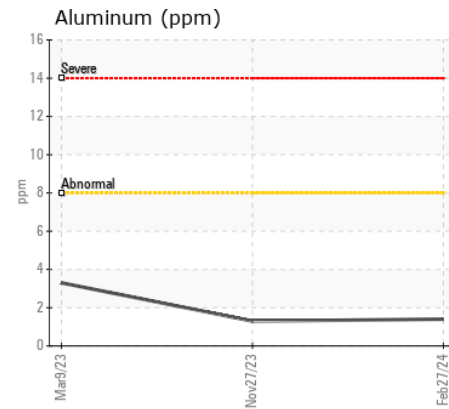
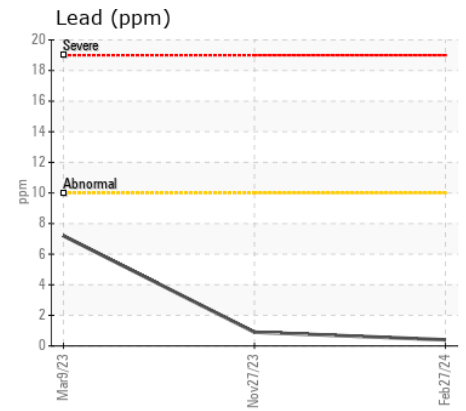
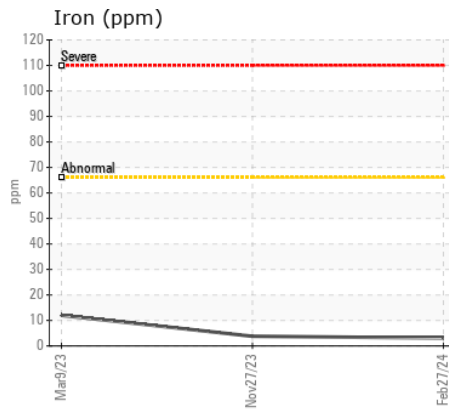
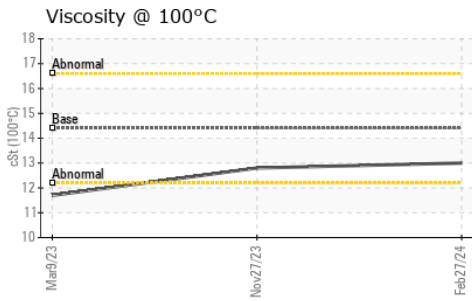
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	6	7	9
Potassium	ppm	ASTM D5185(m)	>20	<1	0	4
Fuel		WC Method	>5	<1.0	<1.0	1.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	8.5	8.5	13.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.7	19.5	42.3
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>216	1	2	2
Boron	ppm	ASTM D5185(m)	250	3	4	103
Barium	ppm	ASTM D5185(m)	10	<1	<1	41
Molybdenum	ppm	ASTM D5185(m)	100	55	58	46
Manganese	ppm	ASTM D5185(m)		0	0	2
Magnesium	ppm	ASTM D5185(m)	450	914	960	926
Calcium	ppm	ASTM D5185(m)	3000	1084	1059	1429
Phosphorus	ppm	ASTM D5185(m)	1150	961	985	726
Zinc	ppm	ASTM D5185(m)	1350	1129	1173	826
Sulfur	ppm	ASTM D5185(m)	4250	2647	2457	1870
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.8	17.8	52.7
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.0	12.8	11.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0270199
Lab Number : 02618627
Unique Number : 5735737
Test Package : MOB 1
Received : 28 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 28 Feb 2024 - Wes Davis

American Iron and Metal
 140 DOWTY ROAD
 AJAX, ON
 CA L1S 1P7
 Contact: Service Manager

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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F: