



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R924C 028643-1069
Component
Diesel Engine
Fluid
LUCAS 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0281207	LH0246918	LH0222018
Sample Date		Client Info		15 Dec 2023	27 Jan 2023	03 Mar 2022
Machine Age	hrs	Client Info		18178	15740	13705
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	MARGINAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	45	34	20
Chromium	ppm	ASTM D5185(m)	>5	1	1	1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	3	4	2
Lead	ppm	ASTM D5185(m)	>30	14	▲ 25	<1
Copper	ppm	ASTM D5185(m)	>125	4	5	4
Tin	ppm	ASTM D5185(m)	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	VLITE	---	---

CONTAMINATION

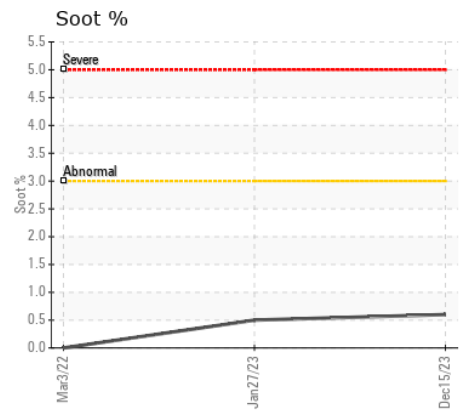
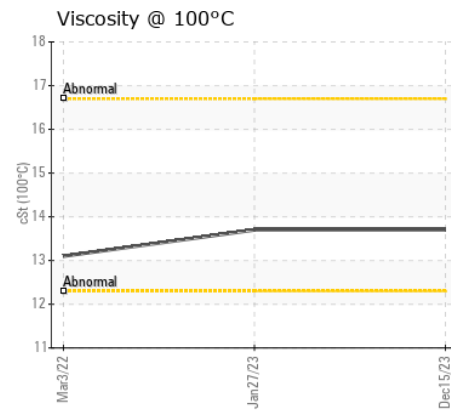
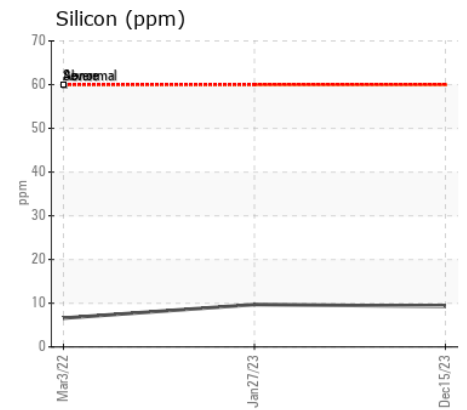
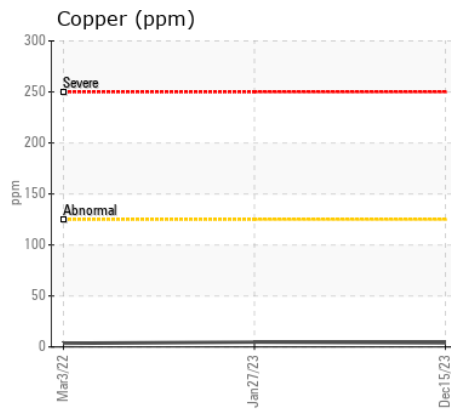
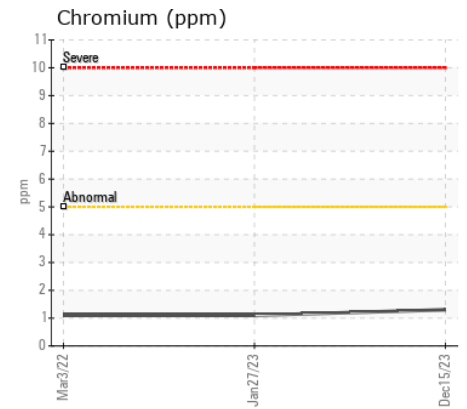
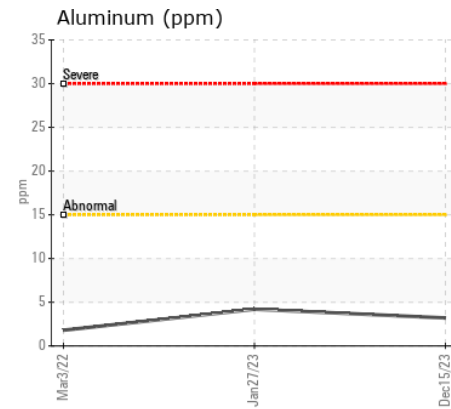
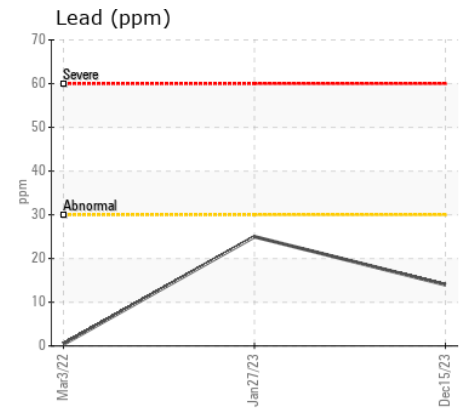
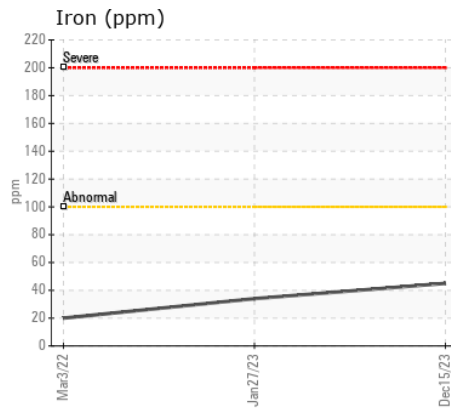
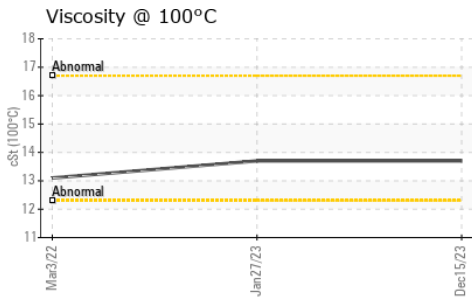
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	9	10	7
Potassium	ppm	ASTM D5185(m)	>20	1	2	9
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.6	0.5	0
Nitration	Abs/cm	ASTM D7624*	>20	10.9	10.7	3.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.3	29.5	14.1
Silt	scalar	Visual*	NONE	VLITE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		2	3	6
Boron	ppm	ASTM D5185(m)		36	91	6
Barium	ppm	ASTM D5185(m)		<1	<1	0
Molybdenum	ppm	ASTM D5185(m)		95	102	1
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		741	767	16
Calcium	ppm	ASTM D5185(m)		1431	1531	152
Phosphorus	ppm	ASTM D5185(m)		1001	1078	1986
Zinc	ppm	ASTM D5185(m)		1199	1215	146
Sulfur	ppm	ASTM D5185(m)		2597	2566	25496
Oxidation	Abs/.1mm	ASTM D7414*	>25	24.5	26.4	4.7
Visc @ 100°C	cSt	ASTM D7279(m)		13.7	13.7	13.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0281207 **Received** : 16 Feb 2024
Lab Number : 02616147 **Tested** : 16 Feb 2024
Unique Number : 5733257 **Diagnosed** : 16 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Visual)

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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