



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
LIEBHERR R938 050886-1650
Component
Left Final Drive
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0267315	LH0258266	LH0258967
Sample Date		Client Info		19 Dec 2023	08 Oct 2023	09 Aug 2023
Machine Age	hrs	Client Info		2998	431	1993
Oil Age	hrs	Client Info		0	0	1993
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Changed
Filter Changed		Client Info		Not Changed	Not Changed	Not Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	32	62	63
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	0	1
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>50	0	9	0
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

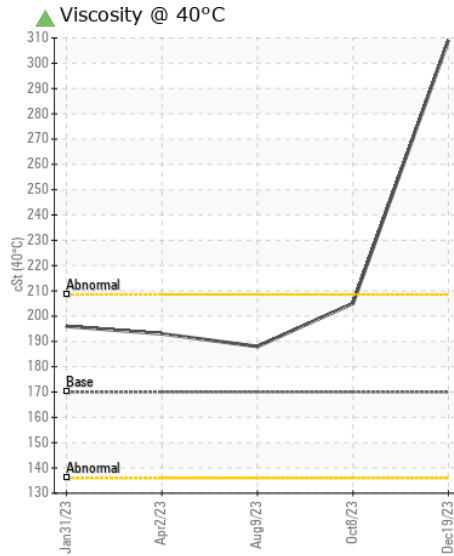
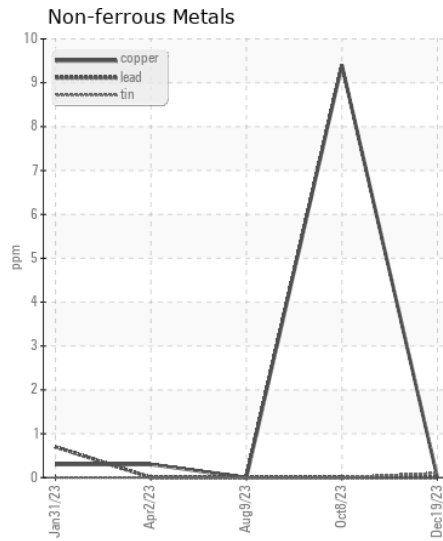
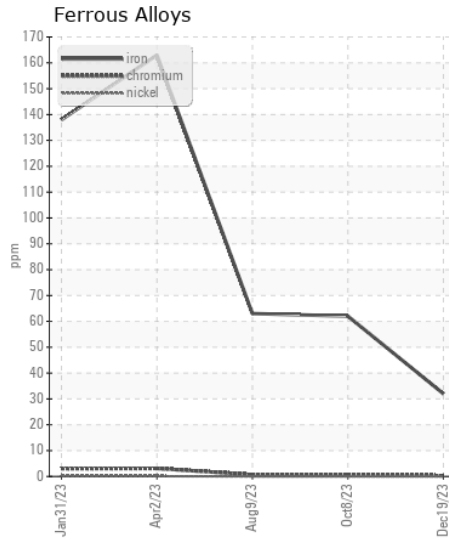
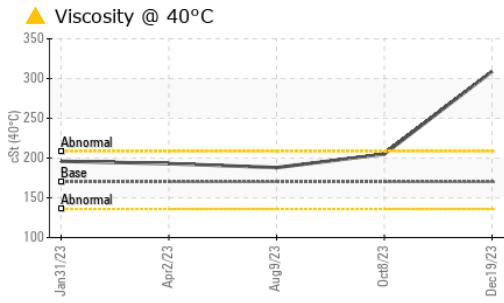
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	3	3	5
Potassium	ppm	ASTM D5185m	>20	<1	18	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil viscosity is higher than normal.

Sodium	ppm	ASTM D5185m		<1	6	2
Boron	ppm	ASTM D5185m	0	0	2	0
Barium	ppm	ASTM D5185m	0	0	11	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	<1	0	<1	3
Calcium	ppm	ASTM D5185m	<1	5	19	24
Phosphorus	ppm	ASTM D5185m	2143	1332	1230	2067
Zinc	ppm	ASTM D5185m	<1	<1	38	23
Sulfur	ppm	ASTM D5185m	23468	27030	26189	25056
Visc @ 40°C	cSt	ASTM D445	170	▲ 309	205	188



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0267315 **Received** : 12 Jan 2024
Lab Number : 06060505 **Diagnosed** : 16 Jan 2024
Unique Number : 10831887 **Diagnostician** : Don Baldrige
Test Package : CONST

M&F CONCRETE PRODUCTS CO
 4002 CATLETT RD
 CATLETT, VA
 US 20119
 Contact: Service Manager

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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