

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R938 050886-1650 - Swing Drive

Sample No: LH0267312

Oil Type: LIEBHERR GEAR BASIC 90 LS



SAMPLE INFORMATION

Sample Number	LH0267312	LH0258264	LH0258964	LH0243980
Sample Date	19 Dec 2023	08 Oct 2023	09 Aug 2023	31 Jan 2023
Machine Hours	2998	431	1993	575
Oil Hours	0	0	1993	575
Oil Changed	Not Chngd	Not Chngd	Changed	Changed
Sample Status	SEVERE	NORMAL	ABNORMAL	NORMAL

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



OIL CONDITION

Visc @ 40°C	cSt	222	197	237	195.7
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T:
F:



CONTAMINATION

Water	%	2.67	NEG	0.722	NEG
Silicon	ppm	14	9	6	4
Sodium	ppm	1	6	2	3
Potassium	ppm	<1	15	0	2

Diagnosis

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. There is a high concentration of water present in the oil. The oil is no longer serviceable due to the presence of contaminants.



WEAR METALS

Iron	ppm	2529	69	1364	697
Copper	ppm	<1	<1	0	<1
Lead	ppm	<1	0	0	<1
Tin	ppm	2	0	0	0
Aluminum	ppm	2	0	<1	1
Chromium	ppm	36	1	20	10
Molybdenum	ppm	<1	0	0	<1
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	0	<1	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	20	1	13	8
Vanadium	ppm	<1	<1	0	0



ADDITIVES

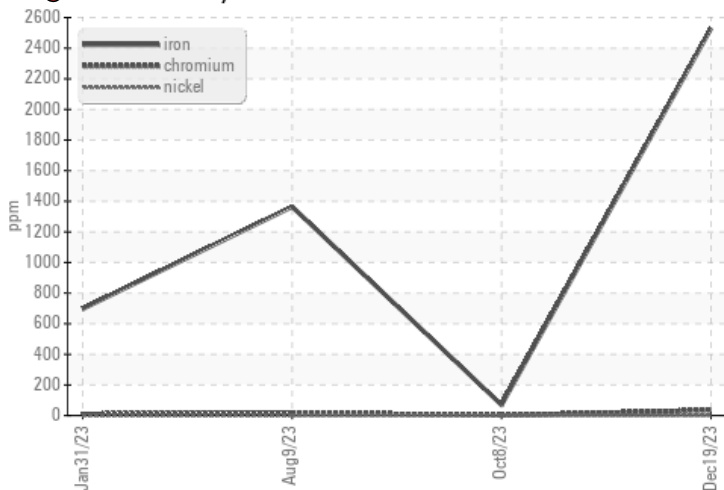
Calcium	ppm	31	11	42	10
Magnesium	ppm	4	0	3	4
Zinc	ppm	22	16	32	25
Phosphorus	ppm	2127	1569	1962	1317
Barium	ppm	1	5	4	2
Boron	ppm	5	0	<1	1

Depot: MECCAT
 Unique No: 10831883
 Signed: Sean Felton
 Report Date: 16 Jan 2024

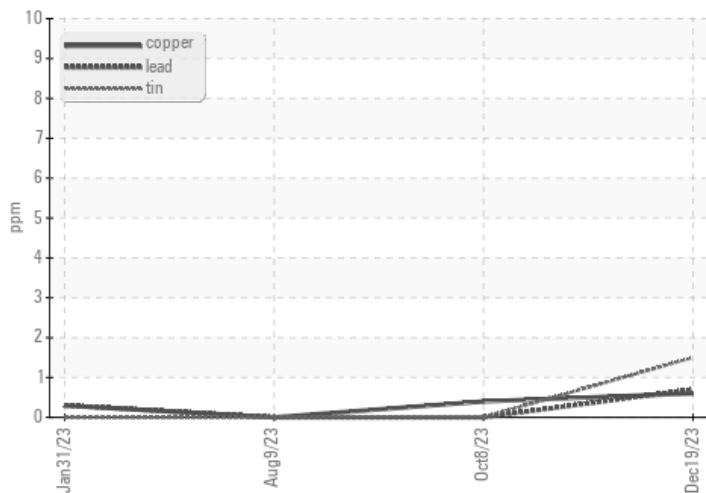


GRAPHS

● Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

