LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR PR766 027905-1681 - Left Final Drive

Sample No: LH0264297

Oil Type: GEAR OIL SAE 80W140

HEAVY MACHINES INC.
3930 EAST RAINES RD
MEMPHIS, TN
US 38118
Contact: J. DAVIS
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T:
F: (901)260-2245

Sample Information

Sample Number		**LH0264297**	LH0254554	LH0254252	LH0254464
Sample Date		**24 Jun 2024**	09 Apr 2024	14 Mar 2024	15 Feb 2024
Machine Hours		**2389**	1627	1016	301
Oil Hours		**2389**	1627	1016	301
Oil Changed		**Changed**	Not Changd	Not Changd	Not Changd
Sample Status		**SEVERE**	ABNORMAL	ABNORMAL	NORMAL

Oil Condition

Visc @ 40°C	cSt	**257**	263	268	273

Contamination

Water	%	**NEG**	NEG	NEG	NEG
Silicon	ppm	**12**	15	16	14
Sodium	ppm	**4**	4	3	4
Potassium	ppm	**3**	<1	3	<1

Wear Metals

Iron	ppm	**150**	147	87	96
Copper	ppm	**856**	450	122	54
Lead	ppm	**0**	0	<1	1
Tin	ppm	**21**	10	4	1
Aluminum	ppm	**2**	2	3	3
Chromium	ppm	**1**	1	2	1
Molybdenum	ppm	**6**	10	10	8
Nickel	ppm	**<1**	<1	<1	0
Titanium	ppm	**<1**	<1	<1	<1
Silver	ppm	**0**	0	0	0
Manganese	ppm	**3**	2	2	2
Vanadium	ppm	**0**	0	<1	<1

Additives

Calcium	ppm	**90**	92	93	85
Magnesium	ppm	**3**	3	3	<1
Zinc	ppm	**95**	72	59	37
Phosphorus	ppm	**1198**	1216	1002	1162
Barium	ppm	**118**	128	125	143
Boron	ppm	**3**	2	2	<1

Diagnosis

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.The copper level is severe. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable due to the presence of contaminants.

Depot: LEC0051
Unique No: 11096860
Signed: Sean Felton
Report Date: 26 Jun 2024

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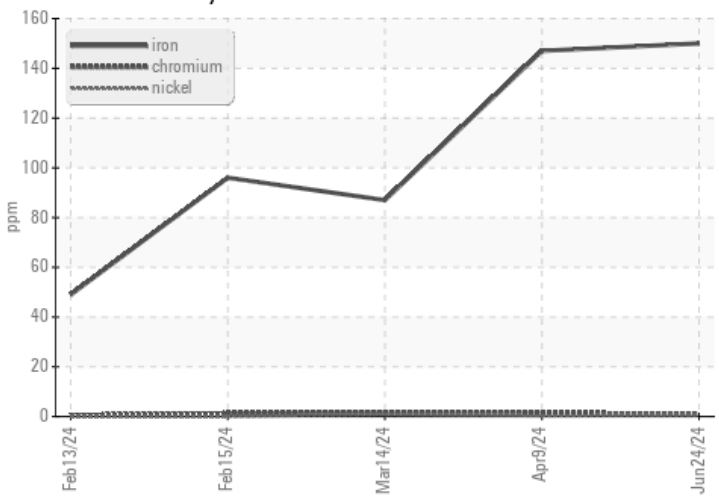
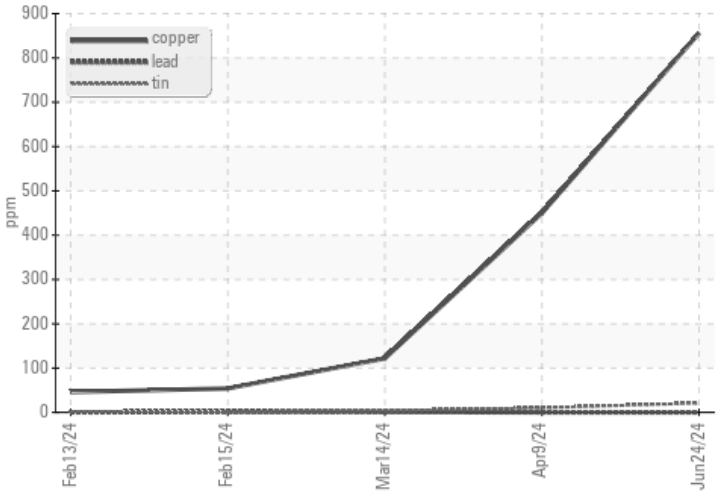
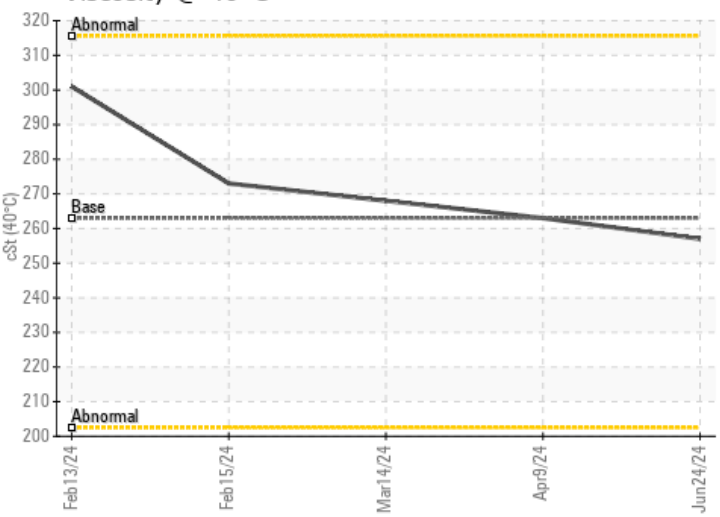
Graphs

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C