

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A934C 061188-1419 - Front Right Wheel Hub

Sample No: LH0253885

Oil Type: HARTLAND 80W90 LS



SAMPLE INFORMATION

Sample Number	LH0253885	LH0253908	LH0236047	LH0204230
Sample Date	21 Sep 2023	13 Jul 2023	23 Nov 2022	08 Jun 2022
Machine Hours	27222	26744	25468	24252
Oil Hours	0	500	500	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

NORTHERN METAL RECYCLING

2800 PACIFIC ST N
MINNEAPOLIS, MN
US 55411
Contact: CHRIS GILMER
chris.gilmer@emrgroup.com
T: (612)305-7338
F:



OIL CONDITION

Visc @ 40°C	cSt	142	151	150	177
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CONTAMINATION

Silicon	ppm	<1	<1	2	4
Sodium	ppm	2	2	2	2
Potassium	ppm	4	3	1	<1



WEAR METALS

Iron	ppm	16	21	25	44
Copper	ppm	0	<1	<1	<1
Lead	ppm	0	0	0	0
Tin	ppm	0	0	0	<1
Aluminum	ppm	<1	<1	0	<1
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	<1	2	2	<1
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	40	37	26	35
Magnesium	ppm	13	9	9	6
Zinc	ppm	19	21	8	23
Phosphorus	ppm	1133	1398	925	1957
Barium	ppm	0	0	0	0
Boron	ppm	14	14	14	35

Diagnosis

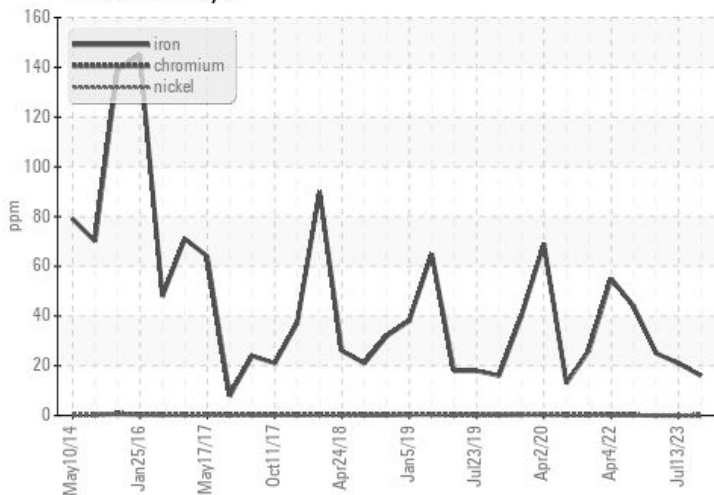
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: NORMINLH
Unique No: 10736224
Signed: Sean Felton
Report Date: 10 Nov 2023

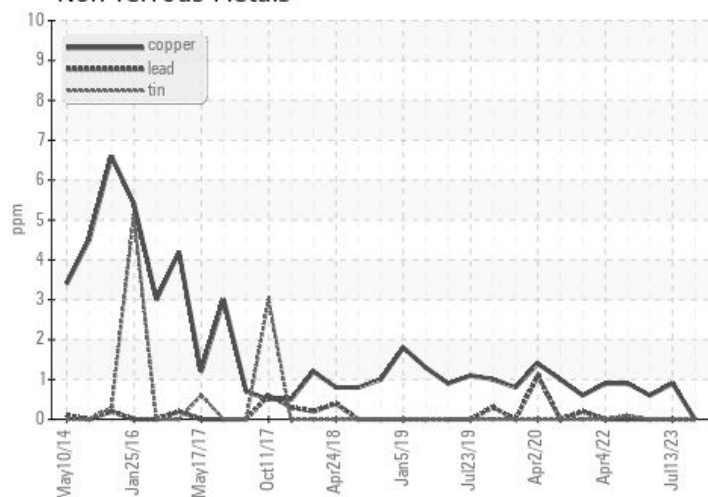


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

