

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A934 047548-1007 - Transmission (Manual)

Sample No: LH0266980
 Oil Type: 5W40 HARTLAND



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



Sample Information

Sample Number	LH0266980	LH0220524	LH0220546	LH0190679
Sample Date	17 May 2024	30 May 2023	07 Nov 2022	01 Sep 2021
Machine Hours	33496	31696	30241	28529
Oil Hours	1000	1000	1000	0
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL



Oil Condition

Visc @ 40°C	cSt	46.3	48.5	47.7	60.2
-------------	-----	------	------	------	------



Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	7	10	7	19
Sodium	ppm	3	2	0	3
Potassium	ppm	2	3	4	2



Wear Metals

Iron	ppm	22	35	31	35
Copper	ppm	4	5	9	5
Lead	ppm	0	0	<1	4
Tin	ppm	0	0	<1	<1
Aluminum	ppm	2	1	2	3
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	4	4	2	2
Nickel	ppm	0	0	0	0
Titanium	ppm	73	60	51	<1
Silver	ppm	0	0	0	0
Manganese	ppm	1	2	2	2
Vanadium	ppm	<1	1	<1	0



Additives

Calcium	ppm	1345	1515	1942	3155
Magnesium	ppm	547	516	393	180
Zinc	ppm	1032	1088	1034	1002
Phosphorus	ppm	939	933	920	920
Barium	ppm	0	0	2	0
Boron	ppm	154	137	153	180

Diagnosis

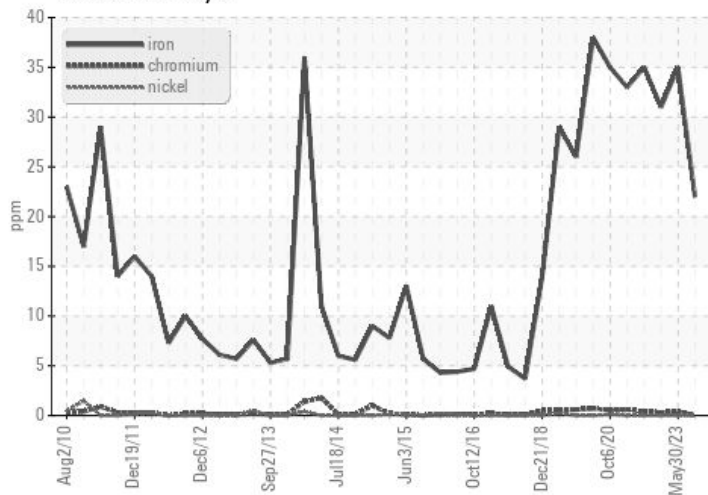
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

Depot: NORMINLH
 Unique No: 11061804
 Signed: Don Baldrige
 Report Date: 06 Jun 2024

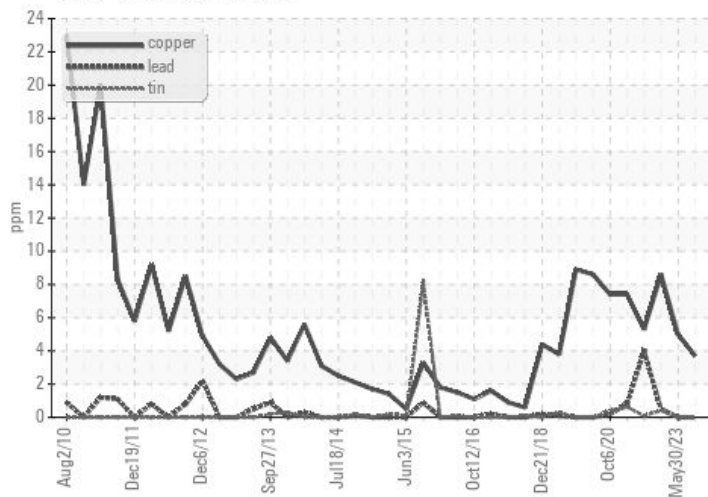


Graphs

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

