

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH110 155976-1227 - Front Left Wheel Hub

Sample No: LH0267549

Oil Type: GEAR OIL SAE 80W90



KINDER MORGAN
4301 IVERSON
TRINITY, AL
US 35601
Contact: CHIP OAKES

T: (256)350-0006
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Sample Information

Sample Number	LH0267549	LH0267533	LH0280576	LH0280565
Sample Date	12 May 2024	18 Apr 2024	23 Feb 2024	30 Jan 2024
Machine Hours	1951	1623	995	534
Oil Hours	956	628	0	0
Oil Changed	Changed	Not Changd	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



Oil Condition

Visc @ 40°C	cSt	116	118	173	174
		●	●	●	●



Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	● 5	● 4	● 16	● 15
Sodium	ppm	● 5	● 0	● 3	● 0
Potassium	ppm	● 2	● 0	● 1	● 2



Wear Metals

Iron	ppm	● 22	● 23	● 41	● 32
Copper	ppm	● <1	● 0	● <1	● 0
Lead	ppm	● <1	● 0	● 0	● 0
Tin	ppm	● 0	● 0	● 0	● 0
Aluminum	ppm	● 2	● 0	● 1	● 2
Chromium	ppm	● <1	● <1	● <1	● <1
Molybdenum	ppm	● 2	● 2	● 0	● 0
Nickel	ppm	● <1	● 0	● <1	● 0
Titanium	ppm	● <1	● 0	● <1	● 0
Silver	ppm	<1	0	0	0
Manganese	ppm	● <1	● <1	● 1	● 0
Vanadium	ppm	<1	0	0	0



Additives

Calcium	ppm	● 162	● 149	● 143	● 146
Magnesium	ppm	● 6	● 0	● 2	● <1
Zinc	ppm	● 88	● 75	● 25	● 5
Phosphorus	ppm	● 355	● 432	● 1542	● 1311
Barium	ppm	● 0	● 0	● 0	● 5
Boron	ppm	● <1	● <1	● 3	● 7

Diagnosis

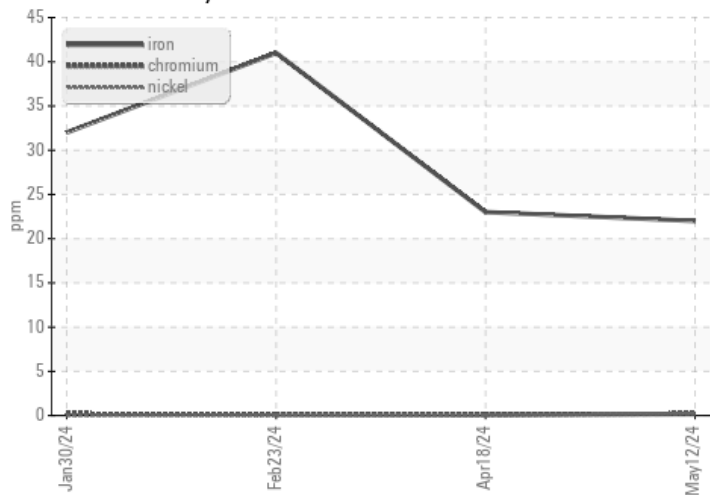
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: KINTRI
Unique No: 11049377
Signed: Wes Davis
Report Date: 29 May 2024

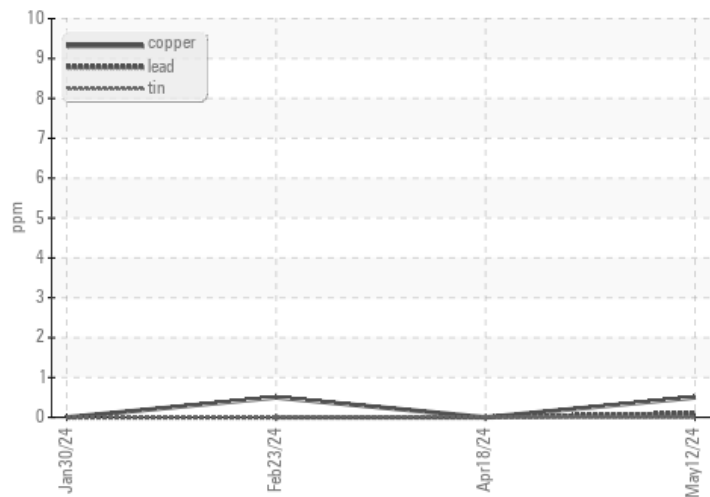


Graphs

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

